Occidental Medical Times

VOLUME XV. SAN FRANCISCO, SEPTEMBER, 1901. NUMBER 9.

HYPOCHONDRIASIS AND HYPOCHONDRIACAL IDEAS—A CASE OF SELF-MUTILATION.

By A. W. HOISHOLT, M. D., Stockton, California.

Read at Meeting of California Northern District Medical Society, November, 1900.

Hypochondriasis was formerly considered a distinct ailment of physical origin, but, while the term in a general sense is still applied to a clinical group of symptoms (the hypochondriasis vera of some writers consisting of complaints, in the absence, as a rule, of material organic changes, and based upon a morbid general hyperesthesia), hypochondriasis has lost its position as an independent disease.

The morbid oversensitiveness to slight physical impressions, which are normally unperceived, shows itself in the irritability and unreasonableness with which such persons react to influences from the external world, incapacitating them for self-support. It is also manifested by an increased sensitiveness to sensations emanating from their own bodies, leading to innumerable perverse sensations from every organ in the body, inciting the patient to persistent introspection and deluded study of imaginary diseases, and making life miserable with the painful consciousness of his own ego, of the existence of which he is constantly being reminded. Even a normal being gets an inkling of this in the hypochondriacalizing effect of age upon life. Dr. Kund Pontoppidan, superintendent of the Aarhuns Insane Asylum, Denmark, says that every one as he grows old, and especially as he becomes feeble, experiences this to some extent. As long as one is young and well, he does not take notice of his own body, or he is at any rate not disturbed by it. Later in life it is forced upon him as another ego, a Siamese twin, which he is condemned to drag with him, to the detriment of the free movements of his mental personality. A time comes when one is, to a certain extent, constantly being tormented by his state of health and vital functions, but experience teaches that it is especially most of the chronic diseases, particularly of the nervous system, which carry with them a certain sad plus expressed in a morbid egoism. It is a great and rare art to be a self-forgetting patient. A person who is constantly suffering is easily tempted to exact that everything should revolve around him, and it is difficult to avoid a certain grumbling unreasonableness. It is particularly this pathological self-love which makes such patients so difficult to manage by their surroundings. In these cases we find the hypochondriacal dejection of spirits grafted, so to speak, upon another illness, from which it derives nourishment.

While hypochondriasis is usually primarily due to an inherited defect of nervous organization, and is not connected with important organic changes, it is seldom that it does not take its origin from slight physical ailments, such as chronic catarrhs, habitual digestive disturbances, mild chlorotic states, etc. Hypochondriacs are said to suffer from an imaginary illness, but not in the sense, as Dr. Pontoppidan puts it, that there is nothing wrong with them. It would be doing the patients an injustice and embitter their minds not to recognize that they are really sick. The imaginary lies in the interpretation,—in the way they think they are sick and believe that they are afflicted with incurable bodily ailments. Dr. Pontoppidan says, "One is always as sick as he feels himself to be; the question is only as to what extent there is an objective basis to the more or less profound changes in the general sensation."

Pronounced hypochondriacal ideas or patophobias are met with in severe forms of neurasthenia developed upon a hereditary basis, in which the psycho-sensory hyperesthesia is extreme, and in which the perversion of sensations in general forces the patient to analyze his abnormal sensations, and leads to the delusional interpretations. Absurd ideas concerning rare and incomprehensible diseases are developed in this manner, as when, for instance, they think their bowels have grown together, or that something alive is moving in their brain. As long as the fear of disease refers to the bodily conditions in general, and gives birth to complaints out of all proportion to really existing, or at least possible, diseased states, so long are we within the boundary lines of neurasthenia; but when the patient makes use of his imagination in deciphering his perverse sensations, and moulds them into disease-pictures of a delirious character, then we are dealing with hypochondriacal paranoia, and in this sense one may speak of hypochondriasis as a degenerative psychosis.

Hypochondriacal paranoia is a name applied to one of the atypical or irregular forms of paranoia, these irregular forms being termed, by Magnan, "les delires des degeneres," and applied to paranoiacs who have shown marked degenerative stigmata long before the delusional ideas were manifested, and in whom the mental debility, as characterized by delusional ideas, develops with the suddenness of inspiration comparatively early in life, i. e., without the intervention of hallucinations and without the long-continued false understandings and interpretations, so characteristic of the typical or regular forms of paranoia, Magnan's "delires chroniques." It is true that one may in the regular paranoia come across ideas which have some resemblance to the hypochondriacal—for instance, where the patient takes his visceral sensations to be caused by injurious substances; but these will usually be found to be referred to the external world and ascribed to the action of enemies. The patient's anxiety does not take its origin from within; he is not a true hypochondriac, but a patient having fear of being poisoned. The peculiar ideas or delusions of the hypochondriac may give origin to certain fixed, monotonously-repeated movements, as when, in a certain case at present under my observation, the patient is constantly gritting his teeth because he would otherwise lose his power to masticate food; or as a case mentioned by Dr. Pontoppidan, in which the movements reminded one of myricism, and consisted of opening and shutting the mouth with up and down and lateral movements of the jaw, the patient doing this to clean his teeth, the decay of which was due to holes so fine that no dentist could find them. In this particular case the movements, based upon conscious motives and not automatic, as in tic-movements or in the so-called compulsory movements, were of a harmless, defensive nature; but sometimes the actions, especially when the abnormal sensations proceed from the sexual sphere, may lead to severe self-mutilations; and the same writer mentions the case of a young masturbator who began to combat the painful sensations in the genitals by pulling and tearing at them. Afterwards he rubbed and excoriated them on every occasion, and finally he was found to have performed self-castration in a most unsurgical fashion. Such acts of self-mutilation may sometimes be a direct outcome of hypochondriacal reasoning. A rare instance of this kind occurred in a case under the care of Dr. J. D. Young, at the Stockton State Hospital, about three years ago. T. B., admitted about Feb. 28, 1891, native of California, single, 32 years of age, began to show symptoms of insanity when 24 years old. The obtainable family and personal history prior to admission was very meager. A love affair and trouble with his stepfather, whom he had murderously assaulted, are said to have aggravated the symptoms and led to his commitment. The examination in the asylum developed the usual symptoms of a chronic, ambitious form of paranoia, persecutory ideas based upon hallucinations of hearing and of general sensation, with marked grandiose ideas; was born when the world was created; when he gets his rights, he will be more than a millionaire; is a great linguist, etc. Physically, apparently well; inguino-scrotal hernia present on right side. In the course of the following four years the symptoms gradually became more subdued, and in 1895 he was given employment about the institution, working most of the time about the barn and stable. In the spring of 1897 hypochondriacal ideas, first observed a year previously, were very pronounced, and centered about the seat of rupture. He stated "that he had a double set of testicles; two of these, situated high up in the groin, had to be liberated; that his groin contained black blood, which ought to come out, and that if it was not soon let out, he would do it himself." On the afternoon of July 1, 1897, he was reported sick, and found covered by a blanket on the floor of the barn. Traces of blood were found on the floor and on his clothes. When spoken to, he said "he had been letting some bad blood out of himself, which had been bothering him for a long time." Upon examination, it was found that he had made a cut with a piece of sharpened steel into the scrotum, after removing the truss he was wearing; and, as he afterwards admitted, he had that forenoon succeeded in getting hold of the intestine, and had pulled out a loop, first removing a piece of ilium 17 inches long, and afterwards cutting off 6 inches more, the piece of intestine being afterwards found buried in a manure pile. Laparotomy was performed at once; fecal matter was found in the abdominal cavity, which was carefully irrigated, and at the end of the severed ilium sutured. Exetus laet. on the following day at 10:30 P. M.

Hypochondriacal ideas may be met with in all gradations from a morbid exaggeration of possible or barely possible organic changes of the bodily organs, such as the head being dry, the teeth loose, to utterly impossible and most curiously-absurd delusions, known as ideas of negation, as, for instance, that the patient has no stomach, that his body has shrunk so that it is no longer recognizable. These ideas of negation are met with in forms of melancholia, the patient considering himself so unnatural and deformed that he can no longer be called a human being. Sometimes it is for this reason impossible for him to die like other people, the idea of negation developing ideas of immortality, which are sometimes even combined with the belief of being already dead. The symptom may also be present in cases of dementia paralytica, which varies greatly as to the course it takes. In one of its forms we meet with a depressed hypochondriacal state, often preceded by a sort of melancholic period of incubation. In this form of general paralysis the ideas expressed assume the same character as in the above-mentioned form of melancholia, only that the ideas of negation are still more absurd, as in a general paralytic, who thought his body had shrunk so that it at first was dwarf-like in size; then he thought it was the body of some other person; and finally he denied that it was at all he who was being examined. Even the maniacal form of general paralysis in which grandiose ideas are especially prevalent, does not always present the picture of silly euphoria, but is often subject to intercurrent attacks of hypochondriacal blubbering and childish terror. With regard to the origin of ideas of negation, Luys has offered an explanation, by assuming the existence in the brain of coenesthetic centers, connected by nerve fibers, each center with its own organ or part of the body. Whenever a pathological process, for instance, an ischemia, puts one or more of these centers out of function, the result is that the corresponding parts of the body have no representation in consciousness. The head, the foot, or a whole limb is absent in the consciousness of self, and even should the peripheral senses contradict this, the patient will still insist that he is not possessed of the particular organ. Ideas of negation may finally be encountered in cases of chronic alcoholism, in which they are frequently very unique and humorously absurd; for instance, when such cases think they have no head, that they have one of glass or of a bird. Esquirol mentions the case of a patient who was constantly going about, like a person who has lost his way, seeking for his body.

SUGGESTIONS BEARING UPON THE DIAGNOSIS AND TREATMENT OF FRACTURES AT THE LOWER END OF THE HUMERUS.

By Thos. W. Huntington, M. D., San Francisco.

A somewhat extensive experience in the management of fractures at the lower end of the humerus, together with frequent opportunities afforded me for the inspection of cases in the hands of capable, painstaking colleagues, has left me with the conviction that the results obtained by the accredited methods of treatment are far from satisfactory.

Every general surgeon has upon his list one or more cases illustrative of this point. Too often pain, deformity, and limited function cripple the patient and humiliate the attendant. It matters little that the patient has been forewarned as to what have been regarded as inevitably disastrous consequences of his injury, nor does the approval of able counsel as to the line of treatment adopted free his mind from the impression that the result ought to have been more satisfactory. With the facilities now at hand is it possible to establish and maintain a higher standard of excellence in the treatment of elbow-joint fractures? The time has come when surgeons should answer this question definitely. From our large hospitals, wherein the pace is set so far as surgical achievement is concerned, there should issue an edict setting forth the rules of practise governing these cases, thereby approving or condemning methods which now prevail.

Fractures in this locality suggest a multiplicity of lesions, whose pathology and individual peculiarities have been adequately described, demonstrated, and illustrated. Their limitation is between the supra-condylar line and any imaginable communication of the lower end of humerus. Their thorough understanding depends upon an accurate determination of three points: 1. The number, relation, and direction of fracture lines. 2. The extent and character of displacement or dislodgment of fragments. 3. The relation of the fragments to the ulna and radius.

It is absolutely essential in considering these points, that appeal be had to the radiograph for a satisfactory interpretation of existing symptoms. No longer can the visual and tactile senses be implicitly relied upon for every link in the chain of evidence. It is true that the determination of the existence of a fracture, together with its general features, is a comparatively easy task. To predicate its exact limitations, to draw an accurate clinical picture, to identify each individual fragment, and give to it its true value in relation to prospective deformity or impairment of function, is most difficult of accomplishment. Surgeons will continue to inspect and palpate, to compare and manipulate. The three bony prominences of the elbow will be appealed to for such evidence as they may afford. The condyles will be scrutinized for mobility, crepitation, or faulty relations, but in most cases the evidences will be incomplete and altogether inadequate until one or more shadow pictures have been carefully inspected and interpreted. Aside from diagnostic measures, successful treatment of these fractures depends upon three factors: 1. Perfect readjustment of fragments. 2. Permanent maintenance of normal relations. 3. As early passive movement as is consonant with safety.

It is not my intention to advocate any conventional plan in dealing with this most perplexing problem. Flexion or extension of the forearm as a universal law are questions that interest me very little, if at all. My contention is that the surgeon must be certain of his initial adjustment, and as certain that proper relations are maintained throughout the progress of the case. This point seems not to have received the attention it clearly merits, and to this fact can be attributed many disastrous results. What right has the surgeon to assume that faulty relations will not be reestablished within a few hours or days subsequent to the first dressing? And in the presence of such a state of affairs, can he be justified in deferring corrective measures until the integrity of the joint is hopelessly impaired? On the contrary, the more rational plan is to make the initial adjustment as perfectly as may be in the presence of the diagnostic radiograph, with the patient under an anesthetic. The position of the forearm will be negotiated so as to conform to the requirements of the case. A light dressing will then be adjusted, eliminating all thought of the maintenance of the fragments by direct pressure. For this purpose, plaster of Paris has advantages superior to any formal splint. The corrective position should be carefully maintained by an intelligent person until the cast has become self-supporting. Within twenty-four or forty-eight hours the initial work should be checked up by a second radiograph. If there still remains a fault in adjustment or alignment, a second or a third attempt should be made for its correction.

I am fully aware of the fact that the general practitioner whose life is spent in the isolated communities of the interior can not be expected to maintain nor is he often within easy reach of an X-ray laboratory. That must be conceded to be his misfortune and not his fault. But it must be remembered that the work done in this line is coming to be regarded as constituting a specialty, and it is to be hoped that X-ray laboratories conducted by photographers or other competent workers will be established with profit in most of our interior towns.

The matter of early resort to passive movement may be dealt with in a few words. Assuming that correct positions have been maintained for five or six days, the joint surfaces will admit of considerable play without disarrangement of fragments or unwarrantable pain. In pursuance of this plan I have usually removed the splint on the fifth day. Movement is affected through a small arc. If the forearm occupy the semi-flexed position, I carry it up toward a right angle through an arc of ten or fifteen degrees. If this has been done without appreciable violence, fixation in the new position is secured as before. In this manner the effort is renewed, and the position changed every second or third day, with successive increase of motion. There are occasional cases which seem wholly incorrigible so far as manipulative measures are concerned. Here the possibility of an unfortunate result under ordinary measures becomes an assured fact. Under these circumstances I should have no hesitation in converting a closed to an open fracture under proper precautions, ascertain the discrepancy, and wire or suture the obdurate fragments. The thought to be borne in mind in this connection is that if such a step be taken at all it must not be delayed. The greatest possible benefit to be derived from operative treatment can only be realized before efforts at repair have progressed to any appreciable extent.

It was not my intention at this time to enter upon any detailed description of special fractures or their sequels, but I am certain that you will be interested in one phase of the subject, which seems not to have been generally understood,—"gunstock deformity," or, according to the more recent nomenclature, "cubitus varus," a condition or deformity resulting from this class of fractures more often than is generally supposed. About twenty years ago Dr. Oscar H. Allis, of Philadelphia, called attention to this deformity, and subsequent authorities have dwelt upon it at considerable length. It consists in a permanent adduction of the forearm resulting in obliteration of the obtuse angle, which normally is made by the axis of the humerus on the one side and the radius on the other. This has come to be known as the carrying angle, enabling a weight to be suspended from the extended arm without striking the leg of the bearer. This condition usually exists without interference with rotation or flexion of the forearm. It has generally been ascribed to a sliding upward of the internal or sliding downward of the external condyle. Very recently, in a most elaborate article, in the *Annals of Surgery* for September, 1900, Stinson has demonstrated that this deformity is associated with transverse supra-condylar fractures of the humerus. In one of my own cases occurring in a child of seven years this condition occurred in mild form after a complete separation at the epiphyseal junction. Logically it would seem that the obliteration of the carrying angle may be attributable to any of the foregoing conditions, that is, fracture of the internal or external condyle, fracture above the condyles, or separation of the epiphysis.

TECHNIC OF GENERAL ANESTHESIA.

E. M. Bixbey, M. D.

Read before San Francisco County Medical Society, June 11, 1901.

General anesthesia is understood to be a condition of complete abolition of all the senses, produced by the inhalation of certain vapors, in which the patient is not only insensible to pain, but is unconscious of all that is going on about him, as distinguished from local anesthesia, or analgesia, produced by spinal cocainization, in which there may be very general loss of the sense of pain.

The agents producing this condition are numerous, and include beside the more common drugs,—chloroform, ether, and nitrous oxid,—such anesthetics as pental, ethene chlorid, or "Dutch liquid," bromid of ethyl, methylene (chloroform 80 per cent, methylic alcohol 20 per cent), kelene or ethyl chlorid, and such mixtures as the A. C. E., chloramyl, or Sanford's mixture (amyl nitrite two drams to the pound of chloroform), Wachsmuth's mixture (one-fifth part turpentine added to chloroform, which is said to prevent heart failure), Schleich's mixture (a combination of chloroform 45 parts, petroleum ether 15 parts, and sulphuric ether 180 parts), by volume boiling at 38 degrees C. for No. 1. No. 3 boils at 42 degrees C., and is composed of chloroform 30 parts by volume, petroleum ether 15 parts by volume, sulphuric ether 180 parts by volume. The ideal anesthetic, combining rapidity of action and of elimination, ease of administration, agreeableness to patient, production of complete muscular relaxation, perfect anesthesia, absolute safety, and absence of unpleasant after effects is yet to be discovered.

A glance at the titles in the Index Medicus shows from 20 to 50 articles monthly in the world's medical literature dealing with the various phases of anesthesia. After more than 50 years of the daily use of anesthetics, discussions on the relative merits of chloroform and ether, investigations of commissions and countless instructions on methods of administration, it would seem that the ground had been so fully covered that there was nothing to be added. Simple as it may seem to "give the patient a few whiffs and put him to sleep," the almost weekly record of "death on the table from anesthetics" impresses upon us the gravity of the subject. R. M. Stone[1] says: "The greatest among us does not lower his dignity when he places the patient on the confines of death, safely holds him there, dead to pain and consciousness, whilst the surgeon wields his knife, and then restores him to life." The greater the surgeon, and the more work he does, the more does he appreciate the hidden danger that lurks in the anesthetic—and the anesthetist—that at any instant may end fatally what would have been a brilliantly successful operation. If, as Lord Lister[2] says, "death from chloroform is almost always due to faulty administration," the need for trained and skilled anesthetizers is still further emphasized by a comparison of the records of the German Surgical Society of Berlin for five years from 1890 to 1895, with those of Mt. Sinai Hospital of New York for ten years from 1887 to 1896.[3] The Germans report 88 deaths in 2,226 administrations of chloroform, and 7 in 6,020 of ether, or 95 deaths in 8,300 operations in five years.

	CASES	DEATHS
Chloroform	2,286	88
Ether	6,020	7
Chloroform and Ether	10,162	1
A. C. E.	5,744	1
Totals	24,212	97

Mt. Sinai Hospital:—

One death from chloroform in 4,263, and none from other methods.

	CASES	DEATHS
Chloroform	4,263	1
Ether	4,673	
Chloroform to Ether	141	
Ether to Chloroform	116	
Ether and Chloroform	164	
Cocain to Chloroform	6	
Cocain to Ether	10	
Nitrous Oxid	142	
Cocain	706	
Totals	10,221	1

During the past fifteen or sixteen months it has fallen to my lot to administer chloroform 496 times, ether 100 times, nitrous oxid 57 times; total, 653 times. The age of the patients has ranged from 14 hours to 83 years, and the length of anesthesia (chloroform) from 10 minutes to 4½ hours. While I may not be able to add anything to the general knowledge of the subject on which so much has been written, reference to some points of technic, of which I may speak somewhat from experience, may be helpful to those who are entering upon the work of an anesthetist, or who are only occasionally called upon for such service, and may provoke a profitable discussion.

First in order comes a preparation and examination of the patient when this is possible, as it usually is in hospital practice unless the case be one of emergency coming in for immediate operation. The bowels should be thoroughly cleared by purgative and enema; a careful urinalysis should be made in all cases, but the mere presence of a little albumin or a few casts is not necessarily a contraindication for an anesthetic. If time permit and the patient be debilitated, rest and tonics are advisable. No solid food should be taken within six hours of the administration, but the patient may drink freely, and if hungry may have a cup of bouillon within a half hour of the operation. Nausea is more likely to follow on a fasting stomach than when the appetite is satisfied. An examination of the heart and lungs must be made by the anesthetist himself. It is generally advised that this be done in the patient's room a day or two before the operation, but I believe it is better done in the anesthesia room. This avoids disturbing a nervous patient by the presence of a stranger, and gives the anesthetist an opportunity to reassure the patient, as he conducts the examination with ease and coolness, just at the critical time when voice and manner are most effective. Most patients come to the anesthesia room with a far greater dread of the anesthetic than of the operation. It was formerly the custom with us to place the patient in bed, anesthetize her there, and then lift her onto the table, an awkward and annoying procedure, as it always arouses her more or less, frequently excited vomiting, and required crowding of the anesthetic. For some months I have had the patient placed immediately on the operating table in the anesthesia room. The objection has been raised that the sight of the table induces nervousness, but I have not found it so, and the patient is better pleased, when it is explained that there is less disturbance and less anesthetic required. The arms are best folded across the chest and retained in position by a broad piece of cloth, passing under the shoulders with pockets for the elbows, and so fastened in front as to be easily loosened in case of trouble. This prevents the paralysis that so often follows from pressure of the arms on the edge of the table when the wrists are fastened above the head. False teeth must be removed, and, incidentally, it is well to see that the eye is not artificial. An anesthetist has been known to puzzle for a half hour over the absence of pupillary reflex in a glass eye.

The selection of the anesthetic is determined by the condition of the patient and the wish of the surgeon. My own preference is for chloroform unless contraindicated. It is true, it is the most dangerous of the common anesthetics, and demands greater skill and care in administration. Four stages or degrees of anesthesia are described by investigators: stimulation, excitement, surgical anesthesia, and profound narcosis, where the danger line is reached. Practically, the anesthetist has little to do with these distinctions. I always instruct the patient to close the eyes, part the lips, and breathe naturally, and not to count. Some direct that a wet compress be put over the mouth and eyes. This I never do, for the eyes must be watched, and more chloroform is required where breathing is only through the nose. It is a mistake to urge the patient to "breathe deeply," as is so often done. The full inhalations are irritating and distressing, and the amount absorbed is unknown. If the administration is begun slowly, and sufficient time be taken, the transition from consciousness to unconsciousness is so gradual that it resembles normal sleep, and there is little or no excitement.

The question of exact dosage has received a great deal of attention. The proportion of chloroform vapor to air should not be less than 1 per cent nor more than 2 per cent by volume. Just how much of this is being absorbed we can not tell. Snow says the second degree, or excitement, is produced by 12 minims of chloroform in the blood; third degree, or surgical narcosis, by 18 minims; and fourth degree, or deep narcosis, by 24 minims, and paralysis of respiration by the absorption of 36 minims.

Many forms of apparatus have been derived to facilitate exactness and safety in administration, as Clover's bag, or Bert's gasometer, Douboise's anesthetic machine, Geppert's[4] apparatus, and the Junker inhaler. The latter is portable and practical, insures a thorough admixture of air, and is especially valuable for operations about the face. These appliances can not always be available, and are cumbersome, so that the little drop bottle and the Esmarch mask will be more frequently used than anything else. No matter what method is employed, all the senses of the anesthetist must be constantly on the alert that the patient be kept where the surgeon can work with comfort and yet not be allowed to pass beyond the limits of safety. In the case of nervous patients it is often better to render them quickly unconscious by nitrous oxid and then substitute chloroform or ether. I endeavor to keep my patient where the pupil, while contracted, responds slightly to light. Never touch the conjunctiva with the finger. The conjunctival reflex is just as easily determined by light pressure on the lid, moving it back and forth over the ball, the pupillary reflex being noted at the same time. Occasionally a case is found where pupil dilates instead of contracting, and will not come down by any methods that I have tried; and while I have never had any trouble with them, they are the cause of great uneasiness. The patient does better when the head is kept low, although the Trendelenburg position in the case of very stout women has been the cause of serious trouble, the weight of the heavy abdomen against the diaphragm interferring with cardiac and respiratory movements. Occasionally the tongue will have to be seized with tongue forceps or towel, and drawn forward, and the throat cleared of mucus, but this can generally be avoided by turning the head so that it lies on the cheek. Then the tongue falls forward, fluids gravitate into the hollow of the cheek, and if secretion be very profuse, the corner of the towel tucked in between the cheek and teeth makes a very efficient drain. In this position, with the little finger making gentle pressure behind the angle of the jaw, the middle finger on the facial artery, and the thumb against the mask, the subject is well in hand. Attempted vomiting during the operation indicates that the patient is coming out. It may be checked by forcing the anesthetic if ether is used, and sometimes with chloroform, but here good judgment has to be used, and it may be safer to let the patient vomit and then bring her under again. More of the drug is needed to induce anesthesia than to continue it, once the patient is thoroughly under. The quantity used will vary with each case. I have carried one for two hours on 20 cc., and have given 30 cc. in a half hour. Ether is given with the cone, or the Allis, Ormsby, or Clover inhalers, and by the drop method. The latter I like when a change from chloroform to ether is indicated. I use the same Esmarch mask and the same kind of drop bottle, and much less ether is required than by the cone method. The Clover inhaler was used but once in our service. Anesthesia was complete in four minutes, and the patient did well under it, but the after effect was the most glorious, howling ether drunk that I have ever seen. Nitrous oxid is given with a special apparatus and is a safe and excellent anesthetic for such operations as tonsillotomy and adenotomy. It is given till cyanosis is produced and the respiration only needs careful watching. It has been used for prolonged operations up to two hours; twelve minutes is the longest time I have given it, and in that case its use was very satisfactory.

If signs of cardiac weakness are noted when chloroform is used, a change to ether is often all that will be needed. The best stimulant is a pint or more of normal salt solution beneath the skin, or within the peritoneal cavity where that is feasible. Occasionally a hypodermic injection of strychnin is needed, and when it is, give gr. one-thirtieth, one-twentieth, or one-fifteenth. Small doses are worthless, and do not follow with hypodermics of whisky. To quote from a recent article on "Coincident Use of Antagonistic Drugs:" "Alcohol, chloroform, and ether are anesthetics all acting on sensibility of nerves and brain in the same direction, as proved by experiments of Dubois, Wood, and others, and the use of the A. C. E. mixture. . . . Yet for years it has been rare to find a reported case of death from chloroform anesthesia, in which it is not stated that in addition to artificial respiration, hypodermic injections of ether, and rectal enemas of whisky or brandy were given with the utmost diligence, apparently oblivious to the fact that both ether and alcohol were only additional anesthetics, . . . directly calculated to make death more certain."[5] Amyl nitrite and nitroglycerin are other drugs better left unused. In cases of collapse nothing takes the place of artificial respiration. The head must be brought low. Oxygen may be given, and the faradic current applied, one pole placed over the abdomen and one over the phrenic nerve, but, as Morrison[6] says, "if artificial respiration does not revive, revival does not take place." Massage over the heart is sometimes useful.

Do not give chloroform in the presence of an open flame, a lamp, or gas jet. The vapor is decomposed into carbonyl chlorid, which is irritating to the air passages of both patient and operators. A case of death from this cause is on record. Ether must not be used under the same conditions, for an explosion of the inflammable vapor may result.

How to prevent nausea is a problem that, as yet, has not been solved. How to treat it when it does occur is almost as puzzling. Chloretone is a drug that has recently been much vaunted as a specific, but I have seen little benefit from its use in the few cases in which we have tried it. One advocate in its behalf states that out of thirty cases he had nausea in only ten per cent.[7] My own experience is almost as good as that without it, and I believe that if the patient is well prepared and the anesthesia slowly and carefully induced, the trouble will be reduced to a minimum. Washing out the stomach before the patient recovers consciousness is highly recommended by some. This I have never tried. Care must be exercised that the stomach tube is not passed down the trachea instead of the esophagus. This accident has been witnessed by some of the members of this society. If the patient does retch, I favor giving a full glass of Shasta or hot bicarbonate of soda water. It is much less severe to vomit on a full stomach than to strain on an empty, and the flushing out sometimes gives relief. Vinegar I have found in most cases to be offensive to the patient when consciousness is regained, and have long since abandoned its use, with, I think, better results. To relieve thirst, and avoid nausea, hot water every twenty to thirty minutes is often well borne, and gives the patient a measure of satisfaction.

In closing, a word or two of suggestion to those who may be just taking up this line of work. Know your anesthetic and use it. Nothing is more annoying to the operator, or dangerous to the patient, than the semi-unconsciousness produced by timid anesthetizers. Death has occurred from not enough chloroform. Notify the operator at once if the patient is not doing well, but do not alarm him needlessly. Keep your attention on the patient and not on the operation. Don't lose your head if trouble comes. Then is the time you must keep cool and act promptly. Have your anesthesia kit well stocked and close at hand for instant use. Remember that the patient's life is in your hands. Your responsibility is as great as the surgeon's, and don't pass the danger line, no matter how much you may be urged to "push the anesthetic."

REFERENCES.

[1] Journal American Medical Association, April 14, 1900, page 908.
[2] British Medical Journal, 1898, page 1057.
[3] New York Medical News, 1897, page 770.
[4] Journal American Medical Association, April 14, 1900, page 908.
[5] Merck's Archives, Sept., 1900.
[6] New York Medical Journal, 1898, page 734.
[7] Journal American Medical Association, Dec. 15, 1900.

THE SURGICAL TREATMENT OF TUBERCULOSIS OF THE GLANDS OF THE NECK.

By S. J. Hunkin, M. D., San Frncisco.

Read before the Medical Society of the State of California, April 16-18, 1901.

When enlarged glands in the neck are known to be definitely tuberculous, surgical treatment is and should be imperative. In the majority of cases, without surgical interference, if the patient does not die, nor become generally infected, nature, who is at best a bad surgeon, does eliminate the disease, but slowly, imperfectly, and with much greater deformity than after the knife of the surgeon.

During that period, while the character of the enlarged glands is still subjudice, the improved sanitary, the hygienic, the medical plan should be carried out. The seaside, the mountains, the cod liver oil, the hypophosphites, are to be carefully and thoroughly tried, and many a time successfully, but when the period is reached where tuberculous infection is assured, the case is at once purely a surgical one. We are then dealing with a semi-malignant disease, which, wherever found, if isolated, and not involving structures essential to life, growth, or development, should be extirpated. In no part of the body, perhaps, is tuberculosis more prevalent, and yet so readily isolated and removed, as in the cervical lymph glands. While the disease in this position is not so directly dangerous, or at any rate does not so promptly and seriously threaten life as when occurring in the lungs or the brain, still its threat is not to be lightly considered.

In a list of cases given by Von Noorden, quoted in Schmidt's *Jahrbucher,* of 149 non-operative cases traced for at least three years, 28 had died of general tuberculosis, and 14 others were suffering with pulmonary tuberculosis; while of 149 operated cases traced for at least three years, 62.5 per cent were cured, that is, showed no evidence of tuberculosis anywhere, against which 37.5 per cent did demonstrate general or local tuberculosis. At present the question, Does the removal of tuberculous cervical glands prevent pulmonary infection from this focus? can not be positively answered. Certainly all evidence points strongly in that direction, although no figures are available. Local recurrence was frequent in the old days, when the curette was an ordinary procedure and excision never considered, removing glands not easily demonstrable before operation. No local recurrence means no danger of infection from that source, and the more thorough extirpation will surely result in the future in more rare local recurrence, and the prevention of both pulmonary and general tuberculosis. Will not the removal of the chain of glands, nature's barrier to infection, rather favor the entrance into the organism of matter dangerous to the economy? It appears as if other lymph channels must be developed and other glands do the work, for we get no lymph stasis, no edema after their enucleation; and again we are not considering normal glands, but filled with tuberculosis, practically tuberculous tumors, and not efficient as filters or barriers against infection of any kind.

The question, of course, that will arise is, "If syphilitic and malignant tumors can be eliminated, are all chronically enlarged cervical glands tuberculous?" and upon this practically hinges the matter of surgical interference. We believe this question can be answered affirmatively in the majority of instances. Probably the generality of tuberculous glands have had an enlarged pre-tubercular stage, when the swelling was due to an ordinary inflammation from infection of the tonsils, adenoids, or perhaps carious teeth. Repeated attacks of such infections leave the glands congested and hyperplastic, with a slowed circulation and lowered resistance, and hence affording a favorable place for the development of the tubercle bacilli, brought by the blood current. The repeated attacks of inflammation acting in these cases somewhat similar to the small traumatisms around joints, which make a slower blood current, lessen the resistant power, and favor the retention and development of the tubercle bacilli from the blood current, which we believe is the sequence of the development of bone tuberculosis. Very probably direct infection does occur. Pathological studies indicate that fact, but we do not think that it is common and ordinary for tubercle bacilli to directly infect a healthy gland through the tonsils, adenoids, etc. Most of our children in the "Little Jim" ward suffer with ragged tonsils frequently. They are living in a tuberculous atmosphere, offering all the chances for infection, and yet tuberculous infection of the cervical glands of these children, occurring while in the hospital, is very rare. If a pre-tubercular stage can be determined in the glands, the case should be treated medically, but when the enlargement has lasted several months, there can be little doubt, and when once the glands are infected with tuberculosis, they are a perpetual menace. This infection is practically assured, if, in addition to the chronic swelling, the patient had a daily even slight elevation of temperature. Experiments made by Otis (*Philadelphia Medical Journal,* 1898) seem to clearly point to a definite reaction from tuberculin in these cases. The dose injected was from .001 to .005 cc., and reaction was considered positive only when occurring in from eight to fourteen hours. In 29 cases of enlarged cervical glands, reaction was positive in 18; was doubtful in 2; and was absent in 9. In the majority of the positive cases the enlargements had been present for several months, while in 6 in which reaction was absent, the glands had been swollen only one to three weeks, chronicity here showing a positive feature. A few experiments on this line by Dr. Halton, in the Children's Hospital, San Francisco, seem to corroborate this result, but not decisively. If further experiments on this line are demonstrative, it will be a great help in deciding when to operate. Speaking of tuberculosis in general, this reaction to tuberculin seems positive. Martin (*British Medical Journal,* 1898), who had collected to that time all data on the subject, considers the case proven. Martin records 21 cases with tuberculosis, all giving a positive reaction, and 30 non-tuberculosis, none of whom reacted. He also mentions Senator, who had 46 cases of tuberculosis with positive reaction in every case; Tinkler, with 73, of whom 71 reacted and 2 failed; Gultmann, 62 cases, and 61 gave a positive reaction; and Trendelenburg, who examined 90 surgical tuberculous patients, with only one negative result.

When a surgical plan is to be adopted, it should be a radical plan, and should aim at such a definite removal, and be just as thorough as the Halstead operation for mammary cancer. While the condition can not for a moment be considered as dangerous to life, as carcinoma, yet tuberculous infections possess in a peculiar form the elements of malignancy, and infection of other parts is frequent from tuberculous glands. There is no doubt of the occurrence of pulmonary tuberculosis; and fatal general tuberculosis is not rare. All surgeons now recognize the unsatisfactory results of operating in this field with a curette, by the injection of iodoform, iodin, etc., and last and probably least, the futile attempts to promote absorption by galvanism. A recent article in the *Philadelphia Medical Journal* strongly advocates the diffusion of metallic mercury through the glands by the galvanic current. The writer has a peculiar method of making the diffusion, and generating the nascent chlorid of mercury just where desired, and has nearly cured two cases in three years. No time should be wasted with ointments, paints, or liniments, and no halfway procedure should be adopted, nor any plan to do a second, third, or fourth operation, if necessary, as suggested and practiced by Senn ("Sajous' Cyclopedia"). The surgeon should be prepared for a serious and lengthy operation, and should not be satisfied until he has found and removed every enlarged and indurated gland in the region; and it is of the greatest importance to remember, as in the Halstead operation for carcinoma of the mammary gland, to remove not only demonstrable lymph glands, but also the fat and connective tissue in which often small infected glands are imbedded. Numerous incisions have been devised to secure better access to the glands, and at the same time to leave the minimum scarring, which is a very important matter, particularly in the female subjects. Teale advises multiple incisions. Hartley uses a sigmoid incision from below the mastoid process in front of the sterno-mastoid, and running parallel with that muscle to about the middle, then making a full curve, going backward about three cm., above the sterno-clavicular joint, and across the posterior triangle to the limit of the enlarged glands. Dowd's incision is the reverse of this: Starting under the jaw, it passes backwards below the mastoid, makes a long curve, and goes forwards and downwards toward the sterno-clavicular joint. Both of these operations involve cutting the sterno-mastoid muscle if a better field is desired, and afterwards suturing it with catgut. Very possibly, I have not had any of the very bad cases; but in ten operations I have not found it necessary to make compound incisions, nor to divide the sterno-mastoid muscle. A simple straight incision along the anterior border of the muscle, from 6 cm. to 8 cm. in length, has given good access, and through which one is able to remove glands from under the clavicle, as well as from the limits of the posterior triangles. In the earlier cases this incision was supplemented by a second small one, placed posterior to the muscle and near its upper extremity, this buttonholing facilitating the delivery of the gland tumors, but in the last seven or eight operations this second incision has been deemed unnecessary, and the whole chain from the clavicle to the mastoid, as well as the posterior chain, including one or more glands, which can always be found lying on the transverse process of the second cervical vertebra, has been removed through the single incision. The scar resulting is very small, very thin, and barely noticeable. The "key of the operation," as described by Cheyne, is the exposure of the jugular vein at its lower part, and stripping the glands from it from below upwards, usually opening the sheath and removing glands, which are often intimately associated with it. Injury of the jugular vein constitutes the chief danger in the operation, hence the prime necessity of at once locating, isolating, and protecting it. I have been satisfied, both from my own work and from observation and study of the work of another surgeon, that, although the glands are gone after singly, and an attempt to conserve everything excepting evident tuberculous glands, before the end of the operation, the jugular is unwittingly exposed; hence to me the necessity of finding the vein by intention, and not by accident. The examination of an operation wound on the 13th instant, in the practise of Sherman, demonstrated this unwitting exposure of the internal jugular vein. While a rent in the jugular is not such a catastrophe as often supposed, still it is an accident one greatly desires to avoid. The knife is used only to divide the skin and platysma, and then division along the line of cleavage, anterior to the gland mass, is made with a blunt dissector, until the internal jugular is reached and recognized. Opening of the sheath is usually necessary, some of the glands being intimately associated with the sheath wall. The descendens noni is recognized and saved, and then the whole of the chain of glands, connective tissue, and fat, are systematically enucleated from below upwards. It is then necessary to dissect beneath the sterno-mastoid into the posterior triangle, and remove all indurated glands, taking particular pains to discover and deliver one or more glands lying on the second cervical vertebra. It has occurred to me when the cavity was apparently clean, after repeated attempts to locate quite a large gland here and upon its removal, to find it caseous. Usually the spinal accessory nerve has not been seen during this maneuver, although if any particular difficulty should be experienced in removing the posterior glands, it would be wise to locate the nerve and divide the muscle, before using force somewhat blindly. Fortunately, however, the posterior glands are usually single; the connective tissue is quite lax, and they shell out with facility. The whole dissection is practically made with the fingers and the dry dissectors, the scissors, and perhaps the scalpel being rarely used to nick the fibrous tissue, when too dense to be readily separated. Great care is taken to prevent breaking the capsule, for fear softened contents should be poured over the wound cavity. Should this happen, parts not contaminated are protected with gauze sponges, and thorough douching is flooded over the infected area. A small existing sinus is freely curetted and swabbed with carbolic acid preceding the operation. If many sinuses are present, the skin around them should be widely excised with the glands, after being treated with carbolic acid. If the glands along the external jugular are involved, the vein is ligated above and below, and removed with the accompanying glands. The cavity left after such an operation is simply immense, extending from behind the sterno-clavicular joint to the first cervical vertebra, and from just under the ramus of the jaw to the limits of the posterior triangle; yet the operation is easily borne, and it is surprising how rapidly it is closed. When the dissection has been done cleanly, and no gland has been torn, the wound is closed with an intra-cuticular catgut suture, after which a small gauze drain is passed between the sutures. When a gland has been broken, the whole wound surface is swabbed over with carbolic acid, followed by alcohol, and then thoroughly flooded with salt solution, wound closed as before, and voluminous dressing applied. Drain is removed in from forty-eight to seventy-two hours. Union by first intention is usual, except at point of drain, and this is closed in about two weeks.

In my cases, once the jugular vein was torn and the rent ligated; once the descendens noni was cut off by accident, after being recognized, and was not sutured. It was in a little girl, and there is, to me, no apparent difference in the muscle of the two sides. In one child, although the wound healed by first intention, a tiny tuberculous cyst developed on one side of the scar, and apparently intra-cutaneous. This was about as large as a dime, and necessitated opening with a probe from the scar margin, and swabbing with carbolic acid. My earliest case was in an adult, and done over six years ago, and my latest for tuberculosis was in a child, and made over a year ago. There has been no recurrence in any case. I say there has been no recurrence. That is true in the tuberculous cases. This same operation was made by Dr. Flood and myself ten weeks ago, on an adult with supposed tuberculous tumor, but after removal, the glands appeared to be carcinomatous, which opinion was confirmed by the pathologist. Recurrence occurred within a few weeks in the sterno-mastoid, making us regret that the muscle has not been removed in this case, as advised in the extreme tuberculous cases. Cheyne has often ligated the internal jugular and removed the entire vein. He usually divides the sterno-mastoid muscle, and afterward sutures it with catgut, with no bad result. Injury to the pneumogastric nerve, or the carotid artery, apparently is not likely, although these important structures are so close to the field of operation, for the jugular appears to dilate and bulge out, and fill all that neighborhood, and, saving the vein uninjured, effectually protects the artery and nerve. Le Breton has seen the thoracic duct divided in one case, and except for a discharge of chyle for a week, the case did well; he also reports an instance in which the common carotid sloughed through the night after the operation at a point where it was infiltrated with tuberculous tissue. The artery was ligated, and the patient recovered. Injury to the pneumogastric nerve must be extremely rare, and its occurrence, while grave, would not necessarily be fatal. The later literature on this subject scarcely mentions its possibility. Roswell Park, some years ago, collected fifty cases of injuries to the pneumogastric nerve upon the neck, and says that the statement in older writers that this is a fatal injury is not warranted. Dowd gives the result of cases after incision of tuberculous cervical glands traced for several years. Total number traced, 309; apparently cured, 202; living with tuberculosis, local or general, 57; died from tuberculosis, 50. There is no knowledge as to how many of these had tuberculosis in other locations at the time of operation, so the figures are valueless as to the result of operation in preventing general or pulmonary infection. One of my children had also vertebral tuberculosis, and still has it, although there has been no recurrence in the neck, and I have a boy in whom I removed, two weeks ago, a single large gland from under the jaw, and that boy also has tuberculosis of the vertebræ, and I do not expect the little operation to cure that. Still I have removed one focus from him which might have been a source of pulmonary or general infection.

This opens the question, "Shall the tuberculous glands be removed when the case is known to be already infected in other places?" If the patient has a fighting chance with one focus, he should, if possible, be relieved of the second. It is a common occurrence with us to have a child who is slowly sinking with tuberculosis in two locations, and the removal of one seems to allow the natural resistance of the child a chance to conquer the second; that is, the child seems to be able to fight at one breach, but gives up when he has to defend two points of attack. To instance: A girl three years of age, with dorsal vertebral tuberculosis, and a large psoas abscess. The child also had tuberculous epiphysitis at the lower end of the fibula. The child was watched carefully for months, and steadily lost weight. The epiphysis of the fibula was then removed, healing took place promptly, the child gained weight, and is now, a year or more later, a picture of health. She is still wearing a jacket, but is evidently able to put up a successful fight against her spinal focus. And it is in such cases that the removal of infected glands, although tuberculosis is evident in another place, will often give the patient a new lease of life. All my cases got well, and have remained well. Possibly I have had a "run of luck," and possibly my cases have not been of the severer type, which is likely. Certainly it has not been necessary for me to do so extensive dissections as are often done by Cheyne, Hartley, Dowd, and others. Still, mine have been the worst, excepting one, that I have seen. In this exception, a case seen in the practise of another surgeon, and at whose operation I assisted, the child appeared to raise tuberculous glands as if he were a special incubator, and then melt away before them. In this child the operation was satisfactory, but there was local recurrence, and he died later of general tuberculosis..

In conclusion: 1. Tuberculous infection of the cervical glands is practically a surgical and not a medical disease. 2. Surgical procedures should be radical, and no reliance can be placed on paints, injections, ointments, or galvanism. 3. The operation advised contemplates locating the jugular, and stripping away its sheath, when lymph glands are associated with it. 4. Stress is laid upon the importance of making strict search for glands, which are practically always to be found lying on the transverse process of the second cervical vertebra. 5. A small incision is usually all that is necessary, and the fingers and dry dissectors are the chief instruments. 6. Operation should be done when other points of tuberculous involvement are known, if the patient would have a chance for recovery with the non-surgical focus only. 7. The question of the local removal of glands, preventing pulmonary infection, is still open, but evidence points to the affirmative.

CHICAGO.

By Douglass W. Montgomery, M. D.

All trades and all professions have their technical terms. The railroad men call Chicago a terminal point, which, for the traveler, means that, having got into it, he does not get out again without paying for it.

From a medical point of view Chicago might be compared to a lymphatic nodule, and the railroad lines to lymph streams. The railroad passengers would be the particles floating in the lymph streams, which, on arriving at the lymph node, become entangled in its network, and are forced to abide for a time. This detention, however, in the soft, suave tissue of the nodule is not altogether undesirable. In Chicago this suavity takes the form of hospitality, which develops delightful fellowship, but it is hard on the stomach. During my last visit some dinners and a day of hot weather put mine out of commission, and all the accessory organs went on a sympathetic strike.

As before mentioned, Chicago is called a terminal point, and gradually the full meaning of the term is dawning upon me. It means that if I am going to New York or Boston, I shall not be whirled through Chicago and on my way, but I shall be dumped in Chicago and then reembarked at the pleasure of the city.

A short time ago I attended the American Dermatological Association, that met this year in Chicago, and shortly afterwards the American Medical Association also, that met in St. Paul. After the St. Paul meeting I wished to go to Toronto. I thought of going from St. Paul to Duluth, and then by steamer to Sault Ste. Marie, there to change to the Canadian Pacific steamers going to Owen Sound. Finding, however, that the large steamers would not run from Duluth so early in the season, I thought of taking the railroad direct to Sault Ste. Marie, and thence down by boat to Owen Sound, as before stated. I was told this would be uncomfortable, and besides would cost me much more than to return to Chicago and so on to Toronto; so my love of ease and my saving spirit forced me back through Chicago again. That being determined, I looked up the railway connections I could make in Chicago, and found I should have to wait there some hours, I have forgotten how many. It then struck me that every time I entered Chicago, whether from the west over the Chicago and Northwestern, or from the east by the Grand Trunk or the Canadian Pacific, or going north, or going south, I had always to remain a few hours in Chicago, and this had been so ever since I had first seen Chicago, in 1886. I was never allowed to go straight through. On mentioning this to a Chicago man, on the train coming down from St. Paul, he said, "Oh, yes! and we count each detained victim as being worth at least ten dollars to us." A great number of railroads run into Chicago, and the ability displayed in so arranging the trains, in the few available hours that a short day contains, that every train shall be a misfit, is very considerable. This enterprise does not cease in detaining travelers in Chicago, and in making them welcome there. A great many railroads entering Chicago have the name of the city in their name, such as the Chicago and Northwestern. This is a continual advertisement, and, no matter where one goes, one sees cars having the name Chicago. What a contrast with this is San Francisco, where only one little railroad has the name in its title!

The Chicagoans have not everything their own way, however. After I arrived in Chicago this last time, by the Chicago and Northwestern, a fellow-passenger stepped into a Parmelee coach with me. He said, "Did you hear that thump on the roof?" I nodded affirmatively. "Well," he continued, "as my occupation is writing, I have to carry a lot of books, and as I do not wish to pay excess baggage, I put them into a valise. On arriving at a station, I pass the valise to a porter, who picks it up as he would an ordinary valise, but quickly finds his mistake. He drops it gladly at the Parmelee coach, for example, and then the next man, whose business lies in transferring the baggage to the roof of the vehicle, has his innings. You heard what he said?"

I did hear what he said. He tackled the valise as he ordinarily would, and nearly dislocated his shoulder with the unexpected weight. Taking a fresh hold, he heaved the valise on the coach top, saying with a grunt, "I guess that fellow comes from the Klondike."

Although Chicago is situated on a flat, monotonous plain, yet even in this respect it has as good a chance to beautify itself as has Berlin, and, in addition, it has a fine stretch of water in front of it,—Lake Michigan. The city has, however, up to the present, paid little attention to beauty, and seems chiefly concerned in running its government cheaply. It is said to be run cheaper, size considered, than any other city in America. This is saying a good deal when one reflects that America is the land of cheap government, both municipal, state, and national. This cheapness arises possibly from two sources, one of which is natural thrift. The other is due to the fact that the city contains many people of different nationalities, who imperfectly understand one another, and therefore naturally consider one another rogues. This applies also to San Francisco, where there is the same conglomeration of nationalities.

But when a great occasion arises, Chicago can meet it, as for instance the World's Fair and the great fire. Seneca's line, "One day betwixt a great city and none," was well exemplified in the latter event; yet the people took heart, and the city was quickly and better built than before.

The lake in front of Chicago, although treacherous, is beautiful. It is often wonderful the number of colors between the shores and the horizon, and their quick changes of feature are marvelous. The place of meeting of the American Dermatological Association overlooked the lake, and I remember one day watching a little sailboat with its sail hanging limp for want of a breeze, when in a twinkling a tempest of wind, rain, and black, hurrying clouds sprang up so furious as to drown the voices of the people in the room.

The park system in Chicago is extensive and in many respects beautiful. All the parks there lack many of the prominent natural advantages present in Golden Gate Park, but we know what Chicago did in Jackson Park in the World's Fair, and, of course, it can do as much again.

Like San Francisco, Chicago is getting some fine statuary. St. Gauden's statue of Logan, the statue of Lincoln, and Rebisso's statue of Grant are examples. The off forefoot of St. Gauden's horse is said to be raised too high. It does look somewhat exaggerated, but it must be said that in stamping the limb is sometimes raised very high. There is a curious feature in the Grant statue. The veins of the horse's legs are represented as being very large, and run almost in circles about the limbs, giving them a curious striped look. Happening to mention this to some of my friends, some doctors in the University Club, they all said they had noticed it, and that the horse undoubtedly had varicose veins.

Chicago appears to have no such fine sites for statuary in its business quarters as is afforded by the gores of the streets opening into Market Street, in San Francisco. The men that laid out San Francisco could not entirely spoil it, and Market Street, with its breadth, its gores, and Twin Peaks at its top, will be a magnificent roadway in the future. A few more statues like those of Douglass Tilden will glorify it.

Speaking of Douglass Tilden's latest group, the Donahue Fountain, it seems to be a fine work of art. Two things strike one in the group, the mental correctness of the figures and their grace and life, for they are real, living, bronze people. By their mental correctness is meant their attitude of mind toward the piece of work being done. The figure at the extreme end of the lever is simply hanging to it, with his eyes closed, waiting for the signal to loosen his hold. The next man is bearing down on the lever and watching the work with interest, but not with such interest as the younger of the two men who are near the sheet of metal to be punched. He stands up straight on a stout pair of legs, with his hand a little raised in expectancy. The elder of these two, however, is evidently the master workman, and is leaning absorbed, and with the intentness in every feature of one who has an accurate task in hand. To get all these features intellectually correct, not alone in their faces, but in every muscle and attitude, is a work demanding a high order of intellect. The age of the elder is well represented by his slighter build. his baldness, his shaggy eyebrows, and a slight curve in the upper part of the back. His body, however, is strong, as a workman's should be, and he has neither the swag belly nor the narrow buttocks which one so often sees, even early in life, if the body itself is beginning to degenerate. We San Franciscans take Tilden's statuary with the unbiased expression of a pelican, but in Europe such work would have a star in a Baedecker.

Chicago University has in hand the formation of a first-class medical school. I had the pleasure of being shown through the anatomical department by Dr. Armour. It is as yet wholly inadequate, and will have to be much enlarged. The enlargement is in contemplation, and will undoubtedly be consummated, for the day when medicine was obliged to take a humble place in a university is past. Germany was the first country that recognized the importance of medicine as a university study, and consequently there developed there a vast number of medical philosophers, institutional men, living by far more simply and cheaply than it is possible for men in practice to live, and having time for meditation and study such as no man in practice can have. The presence of these men in the profession has stimulated investigation and broadened its activities in every way. This same beneficent joining of medicine to university life is taking place in America, to their mutual elevation and spiritual enrichment. In the modern medical school, however, there is a danger to which my attention was drawn by Dr. F. J. Shepherd, of Montreal. The professors who work in the laboratories have, from the nature of their occupation, more regularity and leisure than the professors who both practice and teach. Furthermore, the practitioners meet one another rarely or hurriedly, while their confreres of the laboratory can have a caucus every day if they choose. In addition to this, one of the chief topics of interest with the laboratory men is the distribution of the classes and matters pertaining to the school generally, while the clinical professors have a thousand outside interests. The consequence of all this is that the laboratory men go into a faculty meeting with well-formed plans, and a group of men with a plan carry their point every time against those having no plan. As each man, from natural human egotism, thinks his subject the most important, the upshot of the whole affair is that the students are liable to get a surfeit of laboratory work and a meager allowance of clinical work. It is a good thing to keep the possibility of this error constantly before a faculty, for then it will not be committed. The advantages of good laboratory training, however, and the inculcation of philosophic thought, are of increasing importance to the world, and especially so to physicians, and are so important that, if two men of equal ability were to graduate, one from a so-called practical school and the other from a laboratory school, the laboratory man, although at a temporary disadvantage, would, in the long run, almost surely distance his rival.

Chicago is already a great medical center; for instance, it is no small city where one can find, nor no inferior class of medical men who could have demonstrated, the well-chosen list of patients that the Chicago members brought before the recent meeting of the American Dermatological Association.

THE HAHNEMANN HOSPITAL COLLE

MEDICAL TREATMENT OF LYMPHADENITIS IN CHILDREN.

By E. G. Frisbie, M. D., San Francisco.

Read before the Medical Society of the State of California, April 16-18, 1901.

The treatment of glandular diseases in children differs not materially from the treatment of the same condition in adults, and the only reason for considering them separately is their more frequent occurrence in the young. In the treatment of glandular disease, the first question to consider is the etiology, that we may be in a position to remove the cause, if possible. Recognizing the fact that most glandular affections are secondary, we look for the initial lesion with a view to its cure as a *sine qua non* in the treatment of the glands.

We would then divide the subject into the more acute forms of the disease due to infection from streptococci, staphylococci, diphtheria, the exanthemata, bronchitis, broncho-pneumonia, pleuritis, erysipelas, furuncle, rheumatism, and effects of cold, etc., and the more chronic infections, as typhoid, tubercle, syphilis, and malignant disease.

Having arrived at our diagnosis of the nature of the cause, we adapt our medical measures accordingly, and, of course, in the acute affection antiphlogistic measures are first in importance. Cold compresses, ice, evaporating lotions, sedative applications, as liquor plumbi subacetatis, attention to the bowels, a calomel purge, followed by a saline if free catharsis is not induced by the mercurial, are measures recognized as generally applicable. The local use of mecurial ointment aids to prevent suppuration. If, however, suppuration seems unavoidable, then hot applications or antiseptic poultices are of service to hasten pus formation, and bring the case into the domain of the surgeon. We must not forget to employ supportive measures and combative constitutional treatment, with iron, quinine, nuclein, and stimulants, if necessary. These more acute inflammations for the most part either rapidly subside or suppurate, and the treatment is henceforth surgical. If an acute infective condition exists, whether from a wound or natural cavity, the field of infection must be rendered aseptic, if possible, by curetting and application of strong antiseptics, bichlorid douching 1 to 1000, or swabbing with pure carbolic acid, or, if one of the natural cavities, irrigating frequently with a milder antiseptic solution. If an eczema exists, with its broken absorbing surface, attention to the eczema is a prerequisite to the relief of the adenitis. The region affected should be kept at rest, and, if possible, elevated, to lessen active congestion from the afferent arterial current, while the efferent venous and lymphatic currents are favored. Parenchymatous injections into the inflamed glands of eight to ten minims of a three per cent solution of carbolic acid have seemed to favorably influence the inflammatory process, and prevent suppuration. In the adenitis of the bronchial glands accompanying sometimes broncho-pneumonic and bronchial inflammations, counter irritation and tincture of iodin have been recommended, but are probably of little avail, and the treatment is practically limited to surgical measures, if suppuration occur, and compression of bronchi and large vessels causes dyspnea, etc. In torticollis, due to acute cervical adenitis, local applications of hot fomentations, deep injections of atropin, massage with belladonna ointment and glycerin equal parts, afford much relief. Caution must be observed, however, with the belladonna ointment, as some persons are extremely susceptible to it. The use of the galvanic current, positive pole, to the inflamed glands, followed by the alternating galvanic, are useful measures in affording relief.

There remain the more chronic affections to consider, and here hygiene plays a most important part. Good food, and avoidance of sweets and pastries, and sunlight, exercise, and bathing are potent aids to recovery from all of the more chronic glandular affections. If the glandular trouble is ascertained to be syphilitic, then constitutional treatment, with antisyphilitic remedies, is to be instituted, and in infants, especially, the mercurial inunctions are of the most signal service. The use of potassium iodid in conjunction is advisable if the lesions do not rapidly clear up; or the syrup of the iodid of iron, if the debility of the patient is marked. Syrup of hydriodic acid is much employed, but I have not seen any better results from its use, and my patients take the syrup of the iodid of iron very well, in water or milk, and it is generally well borne by the stomach. Typhoid glandular enlargements usually subside with the improvement of the typhoid condition, though some suppurate. Treatment is the same as for other threatened suppurations.

Malignant affections, sarcomata with glandular engorgement, offer no field for curative measures, and scarcely palliative. Arsenic in the form of Fowler's solution, or, perhaps, better still combined with gold in the double bromide, gives some temporary relief. Coley's serum is a forlorn hope, but worth trying. In the adenitis complicating articular rheumatism, good results are reported by A. Chaufford and F. Raymond (in *Rev. de Med.*, May 10, 1896), from the tincture of iodin given internally 100 drops in the day in divided doses for adults, and children in proportion to age. Leukemia and pseudoleukemia may be considered together with regard to the treatment of the glandular enlargement, or the disease, for that matter, as in both the treatment is practically limited to the use of arsenic in increasing doses to the point of tolerance and some blood builder like red bone marrow. The positive galvanic current to the glands may be of some service.

There remain, then, tubercular glands, and some cases of chronic adenitis in which the etiology is obscure. For both of these supportive treatment, hygienic and medical, is indicated. The drugs that head the list are cod-liver oil and syrup of the iodid of iron. Next in order are lime and hypophosphites, strychnia, and creosote. For the tubercular glands, if the best treatment will be accepted, it will be surgical. But this being often denied, the next best plan is to try to so fortify the system that it may resist the further infection from this focus of dissemination, and the above medical expedients coupled with the hygienic, including change of climate and regulation of habits, offers the best chance of confining the tubercular process within these bounds. But they are always a source of danger, and their complete extirpation is often followed by such a remarkable improvement in the general health as to leave no doubt that some pernicious substance is absorbed into the blood from these diseased glands, even though no metastasis occurs.

I have purposely avoided speaking of scrofulous glands, for I believe that scrofula is a misnomer, since tuberculosis covers so much of what was formerly described under the term as to leave it no excuse for perpetuation in medical nomenclature. In those few cases of chronic adenitis of uncertain etiology the same roborant treatment is of service, and the use of the galvanic current, the negative to produce cataphoresis, with iodin or iodid of potassium of the positive pole, will greatly diminish the periglandular infiltration, and decrease also perceptibly the size of the glands. Cures are claimed for electricity, even in tubercular glands, but I have not seen this accomplished, and am skeptical of its efficacy in that form of adenitis, having given it some trial without success.

Occidental Medical Times

Communications are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author. Published monthly.

OFFICE OF PUBLICATION, : : : 1121 SUTTER STREET, SAN FRANCISCO.

DR. OSBORNE'S REMOVAL.

As we go to press, the morning papers announce that Dr. A. E. Osborne has been expelled from the position of superintendent of the California Home for Feeble-minded Children, and that Dr. Wm. Lawlor, of San Francisco, has been given the appointment. Dr. Osborne has been a faithful and careful steward of this institution; has devoted his life to the study of these conditions; knows his specialty well, and for his reward is, without notice or cause, removed, to give place to one who has bolstered up the lie given to the world by the governor and our local press. The new appointee has not the qualifications necessary to care for persons thus afflicted. His work has been devoted to lines where no doubt it has been of marked advantage to assume qualities which now it is his duty to relieve. This act on the part of our governor is so pointedly and emphatically a political reward that it should receive just condemnation by people and press. The severe censure displayed towards the governor by certain physicians and some of our dailies is very amusing, and most illogical. They know full well the meaning of this act, and at what price the position was secured. The medico-political history during the last two years is, beyond measure, too disgraceful for further consideration.

SOCIETY PROCEEDINGS.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, June 6, 1901.

The president, Dr. G. H. Evans, in the chair.

ANESTHESIA.

The following papers were read: Dr. E. M. Bixby, "Technic of General Anesthesia," published on page 322; Dr. M. E. Botsford, "The Choice of Anesthesia;" Dr. G. E. Caglieri, "Spinal Analgesia."

Dr. J. C. Spencer: The subject of anesthesia, as I know it, is confined principally to chloroform and ether, and to some extent to nitrous oxide. The practical hints and suggestions that have been delivered to us are certainly very valuable, and recall to my mind the first anesthesia I witnessed. The man was brought to the operating room, and the junior assistant placed himself at the head of the table, and used the old-style newspaper and gauze cone, which was stuffed full of cotton. He filled this with ether, and clapped this over the face of the patient. Of course there was a great deal of struggling and gasping. The orderly in the ward and the patients held the patient down, and the junior assistant smothered him with ether. It made a horrible impression on my mind, which served me in later years. However, having had considerable experience personally with anesthetics, having listened with interest to these suggestions, I believe that it is a valuable factor to use a few calming words to the patient before administering the anesthetic. Dr. Bixby in his paper says he prefers not to have the patient count, and made mention of the fact that the patient should not be told to take deep inspirations. I compliment Dr. Bixby on his skill in giving an anesthetic and I have had the pleasure of seeing him do it, but I would go further than the doctor, in speaking about not having them count, and not having them breathe deeply. When the patient's attention is called to the fact, the respiration becomes a voluntary act, and he only breathes deeply up to the point where he loses consciousness, and at this moment he may stop breathing and counting. To the youthful anesthetizer this is alarming, and he speaks to the surgeon, saying that the breathing has stopped. On the contrary, if the patient is told to count, his mind is on the counting, and not on the breathing, and when he stops counting, we feel sure that he is under. In regard to the question of vomiting during the anesthetic, the individual is often in such a state of nervousness that a large amount of saliva and mucus from the pharynx is swallowed, hence the stomach contains a large amount of this frothy mixture, so much so that the patient is troublesome, and takes the anesthetic badly, continues to struggle, and is not influenced by the anesthetic until after he vomits. He then quiets down and there is no trouble. I think if I had occasion to administer the anesthetic under these circumstances, I would introduce a tube and wash the stomach out. I noticed some time ago a suggestion in a periodical as a means to relieve the nausea to wash out the stomach. I had occasion to operate, and Dr. Botsford administered the anesthetic, and she washed the stomach out, and there was no nausea or vomiting afterwards.

Dr. J. Morrissey: One thing Dr. Bixby said was that it was not so much in giving the anesthetic as the selection of the anesthetizer. In the C. and C. Hospital, where the poorest subjects are received, during the time I was under Dr. McLean, chloroform was used entirely, and during the four years I was there, both as student and interne, I have no recollection of any death occurring from chloroform, but I have known of a case in which death was due to ether, but it was not due so much to the anesthetic as to the one who gave it. I have seen internes pour ether on by the canful and chloroform by the tablespoonful. I agree with Dr. Spencer in regard to the one who gives the anesthetic to divert the attention of the patient from the anesthetic. When the patient counts after the one who gives the anesthetic, his attention is distracted, and he continues to breathe well after he loses consciousness. When the patient is disturbed by any noise, it is more difficult to administer.

Dr. C. G. Kenyon: I have one word to say in regard to anesthesia. In my judgment the best method in regard to the management is a little quiet conversation with the patient during the anesthesia, which should be slow in the beginning, and the patient should not be disturbed. There should be nothing in the conversation to distract the patient's attention, and I have found that the patient will become quiet and go off to sleep. If they are disturbed by anything in the operating room, it interferes, and I do not believe in asking them to count, etc., but assure them that there is no danger, and the proper state of anesthesia will supervene and in a much shorter time. We should ask them to go to sleep, and to take the anesthetic with quietude and remain so.

Dr. A. M. Morton: I think in this discussion of the administration of ether and chloroform, cocain, to use a slang phrase, has been given a "cold shoulder." Dr. Kenyon's suggestion is a very good one, to give the patient good advice, and assure him that everything is all right. It will do wonders with him. As regards the question of cocain analgesia, I have used it a little over three hundred times in the last nine or ten months, and am much pleased with it. The point Dr. Caglieri makes against it is the heavy mortality, but I think I can explain that. He also says he objects to it on account of the shock from loss of cerebro-spinal fluid. In the first twenty or thirty cases I used it I noticed I occasionally had shock, especially if we lost much of the cerebro-spinal fluid, but if we draw off just as much cerebro-spinal fluid as we inject cocain fluid, I have not noticed the shock, and that is one reason why the method is condemned by the surgeons. If you use a large needle, you will often draw off ten to thirty drops of fluid before you make the injection. Another point is that he is afraid of hemorrhage. If you pass into the intervertebral space at the side, this may occur, but if you go through the center just below the spinous process, no vessel will be punctured. I would not want to use the enormous doses used for local anesthesia; two to three-tenths of a grain will do the work. He and Dr. Tait did the first work in this country, and I hope it will be the last, for, as he said, the injection is above the lower end of the cord. If you make it in that region there is danger. We do not need to inject into the lower dorsal region, and we can produce anesthesia all over the body without doing that. I have operated in probably twenty cases above the diaphragm, including enucleation of the eye, opening of frontal sinus and mastoid, and excision of the tongue. In one case, that of an old man, where chloroform and ether were contraindicated, owing to a weak heart, the tongue was excised, and it acted wonderfully, and the man could gargle up the blood. It is not necessary to make the injection where the doctor spoke of. You can make it lower, and wait twelve to twenty minutes, and the anesthesia is perfect all over the body. I had occasion to make it in that region, and there was no more shock than when it was done for work on the lower extremity. There is one case I would like to report, a lady of 345 pounds, and she dropped to 318, a large loss. She had a large hernia which we were unable to reduce, as it was strangulated. We held a consultation, and we concluded that it was not advisable to give ether or chloroform, and many objected to the operation. I injected ten minims of a two-per-cent solution of cocain, and on account of the abdomen, I removed twenty pounds of fat and reduced the hernia, but the patient died. At the post mortem we found she had hydrops pericardium, and a lesion of the tricuspid and mitral valves; we therefore could not attribute the death to cocain. I think any person can administer the cocain, and as far as I can observe, there are only two dangers to fear. First, we occasionally have shock, but this occurs when salt solution is used or a lumbar puncture is made, but if you do not draw any fluid off, it does not amount to anything. Second, sepsis, which is really the only objection, and many of us who are not doing much general work, if we are not careful, will have sepsis, and when this occurs, there is nothing we can do to assist the patient, and that is the serious objection. I believe that by careful cleansing it can be prevented. I have used it in children of seven or eight years to people of eighty-seven years, and not selected cases, and many of whom had been refused chloroform or ether, and I am still of the opinion that it is safe, barring sepsis, which we all can prevent.

Dr. H. A. L. Ryfkogel: I think that Dr. Morrisey can recall one case of death under anesthesia. He was in my class at college, and we sat side by side, when a patient died under chloroform for an operation on the lower jaw.

Perhaps the doctor may have been absent. The work of Cushing on the "Prevention of Shock" has not been mentioned. You are aware that a large amount, if not all the shock, is due to severance of a large nerve, and Cushing found that by injecting a few drops of cocain at the point of injury the shock was eliminated.

Dr. Z. T. Malaby: I think Drs. Kenyon and Morrisey mentioned suggestion previous to operation. That comes under the head of suggestive therapeutics, and doesn't that border on Christian Science? I think it is well to give one-fourth grain of morphin before the anesthetic. It very often does good, and it can do no harm. I am in favor of the expert giving the anesthetic and leaving the choice of anesthetic with him. The new graduates that go into the large hospitals receive no lectures on anesthesia, and I think to that is due the large mortality. In the present year I know of no less than three cases of death from anesthesia. One was in the University of California clinic. The patient came into the clinic, and was very nervous. She had a bubo. She was given a general anesthesia without any preparation, and in the exciting stage she passed away. I think a large number of cases are due to neglect, and I think it is time to advocate a chair in the colleges for this subject.

Dr. A. Keenan: I don't wish to appear forward, but I have had a little experience in giving anesthetics at the St. Mary's Hospital. I gave about 600 or 700, and had one death. I don't think it was due to carelessness. The circumstances were these: The patient came to town and entered the hospital at 7 A. M. that morning. Dr. Thorne was on the floor, and made an examination, and she was sent down for some little preparation, and was then brought into the operating room. I had given two or three anesthetics that morning, and when she came before me, I found her pulse rapid and the volume small. I started the anesthetic slowly, and used the method Dr. Kenyon spoke of, requesting the patient to control herself and clench her fists. I found that in a sensible man or woman, or in one of moderate intelligence, there is usually no trouble. Shortly after I had started the drop method, the patient stopped breathing, and we worked on her for an hour, but the patient died. No post-mortem was held, and consequently we could not determine the cause of death, but it was not due to carelessness.

Dr. Levin: The main objection to the discussion to-night has been the selection of chloroform or ether, the preference of one over the other. We should particularly call the attention of the younger practitioners how to administer the anesthetic, and this seems to be problematic. Very often, as soon as the anesthetic is started, the patient becomes cyanotic, and this increases, and the patient does not come under control. The way to control the jaw is not taught enough. The larynx remains partly closed, the forceps are used to catch the tongue, and the cyanosis increases, and the respiration increases. I have witnessed it several times, and you will always hear an actual sound showing the inspiration is disturbed, and also the expiration, thereby showing that the larynx is not open. We acquire this by long experience, and then we know how easy it is. We must press the jaw forward and not down, and the closure of the larynx is then prevented by the omohyoid and other muscles. Not only the examination of the patient before giving the anesthetic, but how to give the anesthetic should be taught in the colleges, and very often the young physician has to use his judgment, and to make a diagnosis as to whether the chloroform is to be used or not.

Dr. C. G. Kenyon: I did not hear all of Dr. Bixby's paper, but I wanted to call attention to a rule I have followed out, and that is to give a hypodermic of morphin, one-fourth grain, and strychnin one-fortieth grain, ten minutes before the operation. From Dr. Malaby's remarks I should judge he has not had much to do with hospitals. I have never known the surgeons to interfere or teach anesthesia to the new internes, and when the new internes come in at the St. Luke's Hospital, they become very proficient. When they begin, it is a misfortune to think that they are adepts, when they are crude. I feel a little nervous about their method, but in a very short time they become very proficient, and I think that the remarks of Dr. Malaby are uncalled for.

Dr. G. W. Davis: The question of anesthesia is always interesting, and there is always something new to be learned. As a country and city physician, I have had considerable experience in anesthetics. Very often, I had friends and relatives give it in the mountains, and people who knew nothing whatever about it, and it was certainly not due to skill on my part, but fortunately, I have not lost one case. I have never seen a death from anesthesia, even in large hospital experience. I have not had or seen a death. I have seen patients very near it, but were resuscitated; but as to seeing a death, it has not been my misfortune. When it is possible, I prefer to have the anesthetic given in the operating room; if not, in the bedroom and the patient then carried to the room. It is important that the patient should have confidence in the surgeon; she should feel that nothing will happen, and if a careful examination is made beforehand of the heart, and a study of the idiosyncrasies of the patient, and examination of the urine, we will be warned beforehand if everything is all right. As suggested by Dr. Malaby, I give one-fourth grain of morphin before the anesthetic. Only last Saturday I had a laparotomy, and gave one-fourth grain of morphia, and there was no trouble, and the patient is getting along nicely. It is very important to have the confidence of the patient, and have as little noise as possible. The chloroform is being used more now than it was when I was in the country. Ether was generally used.

Dr. D. D. Crowley: I would like to make a few remarks on this subject. In a case I saw, the patient wished to walk to the operating table, and in my experience this is one of the causes of collapse when the patient is going under the influence, and causes considerable trouble. In speaking with the patient I endeavor to keep him quiet. In one case I was telling the patient a story when he went under the influence, and I met him several months later and he wanted me to finish it. We should avoid levity, as it may produce a rapid contraction of the diaphragm. In ten years I have given five thousand anesthetics, and in that time I don't know of a collapse, outside of this condition. Dr. Malaby spoke of using morphin before the anesthetic. In one case I combined it with atropin, and it was my only case where the patient became cyanotic, and she could not be operated upon. I gave the anesthetic for Dr. McLean twice a day for seven years, and I never had a collapse or any untoward symptoms.

Dr. E. M. Bixby: I have nothing to add, but I might answer Dr. Pischel in regard to the nitrous oxide. I think the longest time it was used in an operation was in the east for two hours. It was considered very efficient and safe, but most expensive. The case was reported in literature. The longest time I used it was in an elderly man with a large carbuncle and asthma, and I did not consider him a fit subject for ether or chloroform. In this case I used the nitrous oxide, and put him to sleep. I then removed the mask until consciousness returned, and then alternately applied and removed the mask, and kept him under for the necessary time. I have not employed the rectal anesthesia. The literature touches on it, but I have not seen the returns of many cases. We can produce sleep with the ethyl chlorid in one or two minutes, and it is a good method as a preliminary to the general anesthesia, and when we have the ether transposition, the patient does not choke.

Dr. Pischel: I wanted to know how long such a narcosis lasts, as in the removal of adenoids.

Dr. Bixby: The anesthesia lasts from thirty to sixty seconds. In the use we have made of it, one anesthesia was usually successful for adenoids or tonsillotomy. Where the two faucial tonsils were taken out, we have replaced the mask, and the operation completed under that.

Dr. Botsford: I think the course of teaching is not necessary for the hospital internes. I think the course of teaching in the colleges should be for those who do not get the hospital practice, as the internes in the hospital get a great deal of experience, but for the man or woman without the advantage of hospital training, I think it is very necessary.

Regular Meeting, July 9, 1901.

Dr. G. H. Evans, the president, occupied the chair.

EXCISION OF TONGUE BY MEDULLARY NARCOSIS.

The following papers were read: Dr. A. W. Morton, "Excision of Tongue and a Lipoma of the Face by Medullary Narcosis." Dr. J. C. Stinson, "The Treatment of Ultra Peritoneal Inflammation and Suppuration in the Pelvis and Vicinity by Post-Cervical Vaginal Incision, etc."

Dr. R. W. Paine: I had the pleasure of seeing both operations, and neither of the patients had any pain during the entire operation, one of which lasted two hours. I also wish to add that the operation on the lipoma prompted me to use it on operations on the head, upon the ground that, if one branch of the fifth nerve could be anesthetized, others could. I operated on an old lady 80 years of age, who was not very strong, and where the general anesthesia was contra-indicated. I asked Dr. Morton to make the injection. There was some discomfort, nausea, slight vomiting, just a trifle, but a good deal of depression, and the discomfort lasting from five to seven minutes. It required thirty minutes for the anesthesia to reach the head. However, the eye was enucleated, and the only thing she felt was traction on the optic nerve. After that I made five operations on the head with this method, including operations on the mastoid and frontal sinus, in some of which there was not full analgesia, but I attributed this to the technic. I did not give as much force as Dr. Morton usually gives, and the result was that the anesthesia did not develop in the head under thirty or forty minutes, and even then the patient felt some pain, although there was considerable analgesia. However, when Dr. Morton made the injection for the mastoid case, the analgesia was complete, but not earlier than thirty minutes. Another case in which I used the spinal analgesia was in the removal of the ossicles, in a case of old otitis. When a general anesthesia is used in these cases, the reflex seems to persist longer from the ear than the corneal reflex, and the patient is seen to flinch when the ossicles are removed. The operation was on a boy; and, after making the injection, I had him lie down for one-half hour, when the anesthesia was complete, and I then had him sit up so that I could use the head mirror. I made the operation with the patient sitting up, and there was no pain. He was put to bed, and in ten minutes I was ready to leave the hospital, and I went to see the patient. He was not in bed; and, when I asked for him, he came running up the ward as well as before the operation.

Dr. G. Caglieri: I did not intend to say more on this subject, as I had expressed my opinion at a recent discussion, when I had looked up the subject carefully. I say, in my cases I have never been able to get these results, and never obtained analgesia in the neck, and I have injected the same quantity of cocain solution as the fluid drawn out. Seeing that the evidence is so strong tonight, I would like to be invited to an operation and see it done myself. I would like to be invited to the next case of enucleation. I have not obtained any of these results, and none of the gentlemen I have spoken to have obtained them. In the literature I have never seen anything about the enucleation of the eyeball, but I am open to conversion.

Dr. Huntington: I would like to ask if the same amount of cocain used subcutaneously is more dangerous than when injected into the subarachnoid space? And I would like to ask the number of cases the doctor had and apprehended the immediate result of the operation.

Dr. A. W. Morton: As to the first question, whether I consider it as serious in the subcutaneous as in the subarachnoid space. I do not consider it as serious to inject into the the subarachnoid as into the subcutaneous tissue. Why? I think it has a decided local action in the subarachnoid space, as shown by experiments by Tait, Caglieri, and men in Europe, and some tend to show that carmin injected into the subarachnoid space remains in the nerve and lymph channels connecting the nerve with the subarachnoid space; consequently, it does not enter the circulation to any extent, and we know there is no communication between the subarachnoid space and the circulation. So far as poisoning is concerned, I do not fear it. Second. As to the serious cases I have seen. I intended to look up the number, which is 300 to 350 cases, 25 cases in the upper extremity, and only in two of these cases I felt in any way alarmed. One was an old gentleman, where I removed a large carcinoma of the scalp, and he suffered with considerable shock; but I think it was due to air in the pleural cavity. The pulse became rapid, but the superficial circulation and the respiration were good. The second case I reported some time ago, in which I had a death. The post-mortem findings would not indicate poisoning. She weighed 318 pounds, and had a large ventral hernia, which was strangulated, and at this time I was unable to reduce it. I injected 12 minims of a two per cent solution, and removed 20 pounds of fat from the abdomen to reduce the hernia. but before it was completed the patient succumbed. At the post mortem we found adhesions of the mitral and tricuspid valves, hydrops pericardium, a fatty heart, and atheroma of the arch of the aorta, and I do not think that death could be attributed to the cocain. I had several physicians in consultation, and they did not think it was wise to employ any form of analgesia, and, as an extreme, I used cocain. My results have been happy ones, and, when there is a rapid pulse, I think it is handling the tissues that excites them.

Dr. T. W. Huntington: My experience in this has been very limited, perhaps one-half dozen cases, and it has not been satisfactory. There are a number of reasons why I think it is not the analgesia of choice for surgical work. Coming to the question I just raised, I am aware of the fact that cocain is eliminated very rapidly from the kidneys and from the subarachnoid space. That being the case, I do not see why it does not get into the circulation. I am well aware that a small amount of cocain given subcutaneously may produce alarming effects. In one case I injected 10 minims of a 4 per cent solution for an operation on the toenail, and I was busy several hours keeping the patient alive. As to the death reported, I can not conceive that death was caused by anything else than the anesthetic. I am aware of the hesitancy with which the world takes up anything in this line, and it is met with obstruction, and objection arises when there is anything for the good of humanity. In these days the tendency is far less than in the past. For the past two or three years this method of analgesia has been in vogue, and exploited in nearly all prominent hospitals. In the past three months I have sought opinions regarding it in the literature, and it corresponded with that of gentlemen I happened to know; and while at the beginning, with all the investigations I made with it, I was strongly impressed with the value of cocain, I have gradually drifted away from it, and look at it as one of the things regarded as a dangerous agent, and one which should be used in only few and selected cases. So far as the availability is concerned, I have no doubt, and I believe that most operations can be done under it; if as well, I doubt it, and in this opinion I am seconded by a large number of men. In reference to the use of anesthesia in marked renal and cardiac lesions, I want to say, in regard to renal lesions, an acute nephritis may be produced by it, and is being done in a large number of cases without our knowledge. I do believe that, in contracted kidney of long standing, ether or chloroform may be administered with comparative safety, and I believe that no anesthesia is as safe in a case of marked cardiac lesion as chloroform. I am taking stand against some high authority in this respect. The experience of years has fortified me in this belief. Only recently I performed a hysterectomy which lasted one and three-fourths hours, and the patient had distinct cardiac murmurs. Now, I am perfectly sure that the patient would have died under spinal analgesia. I do not rise to oppose the analgesia, but I want to say that we must not expect to give up the former practice entirely, and, as time goes on, those who use the spinal analgesia will gradually drift back to the old method.

Dr. E. G. Frisbie: I have had only a limited experience, but a satisfactory one, perhaps a dozen cases. I have not been successful enough to get into the upper extremity. I have used 15 minims and waited 25 minutes, and then got impatient and used chloroform. Below the diaphragm it is very satisfactory, and its great recommendation is the absence of the after discomfort. The patients are frequently in a more serious condition from the anesthetic than from the operation. I am satisfied that if we take a healthy individual and keep him under chloroform or ether for one or two hours, there would be great deal of depression, and add to that the shock from the operation, and it puts him in a bad condition. For two or three days we feel uneasy, and it is due to the depression following the anesthetic. After the cocain analgesia there is no depression. The patient wants to eat after the operation, and there is no gastric disturbance. I had one case recently where there was a great deal of headache after the injection; whether it was from the spinal injection or not I do not know, but probably it was. He was a big man, a miner, and said he was in good health, and did not suffer from headache before, and it is fair to consider it the result of the injection. In regard to the point Dr. Huntington raised, about the use of the anesthetic in the subcutaneous tissue, I was called upon several days ago to operate on appendicitis. Several years ago the patient run a nail into his foot, and I gave cocain, and he developed alarming symptoms, pulse, respiration, and dilated pupil, but he recovered. I had forgotten that fact at the time of the operation, or I would have been afraid to use the cocain; but with the 15 minims he had little nausea, pulse 110, which, after six or seven minutes, returned to normal, and the operation was completed.

Dr. Krotoszyner: When one hears and sees a method praised to the skies, and one colleague runs it down to the gutter, it is time for one to get up who has had experience. I have used this method about forty or fifty times, and, of course, mostly in genito-urinary cases. I had occasion to speak of my experience two or three months ago, and expressed myself unfavorably, and said I would use it only when absolutely necessary. Since that time I have used this method pretty often, because my attention was called to the fact that tropococain does not have the poisonous effect that cocain has, and it does not produce the symptoms I pointed out at that time. Since that time I have used it in twenty-five or thirty cases, using the method of Tait and Caglieri, the interne having the tubes ready for use and in an aseptic condition. In the majority of cases I have not seen any bad effects, save a rapid pulse; outside of that I have seen no bad symptoms, and I have used it where I know chloroform or ether would have been disagreeable. For instance, I have used this method in an old man three times for Bottini operation. I would not have made the second Bottini if I had to use a general anesthesia, because the heart and kidney were not satisfactory. I agree with Dr. Huntington that cocain is injurious to the kidneys, but I have not seen any bad results in this old man. I also made the same observation that Dr. Frisbie made, in a man of 54 years, in which I did a Bottini. Twelve days ago he developed a headache, and it is now a uremic headache, and it must be associated with the spinal injection. The few cases Dr. Huntington observed are not sufficient to draw conclusions from, and a 4 per cent solution is too strong. I think if that method is used carefully, and in cases that demand it, we will in time give it space among the analgesias.

Dr. A. W. Morton: The reason I presented the two cases was to show that the analgesia could be extended all over the body. I am not surprised at the doctor's not finding it in the literature, as I think we were the first to bring it out in the State Medical Society. I have received letters from Murphy and others who seem to doubt it. I would be glad to have the doctor come and see a case, and it was my fault that I did not invite him. I will say that most of the cases are open to the public. Not only the students, but even twenty or thirty physicians witnessed this operation on the lipoma, and they would testify to what I have said this evening. I can not say whether it is the best method, as it will take many cases to demonstrate, and that will take a long time. I will say, in the cases where I have used it, the results have been more satisfactory than with an equal number of cases with other anesthetics. The case in which I had the alarming symptoms was where I drew off 40 or 50 minims of the cerebro-spinal fluid to get the specific gravity. The symptoms were not due to the cocain, but to the waste of the cerebro-spinal fluid; and in five other cases, where I drew off an equal amount, I had slight symptoms. If I had the same condition in all cases, it would have finished me in two days. We found the cerebro-spinal fluid heavier than the cocain solution, and if we elevate the patient, and inject with much force, it will go through to the fourth ventricle, and will touch every nerve that leaves the medulla. Failure may be caused by improper sterilization of the cocain. If we bring the solution up to the boiling-point four times, it will get old and ruin the analgesic properties of it. Dr. Riley has done good work in perfecting a method to have it fresh and sterile. He sterilizes the crystals by bringing them up to 300 degrees, and seals it up, and when it is to be used, it is to be placed in a sterile solution. If in solution too long, poisons will develop. If we use the large needle, naturally there will be a loss of cerebro-spinal fluid, and we will have the shock that one of the gentlemen referred to, and which is spoken of as cocain poisoning. It has been claimed that, if cocain is put into the fourth ventricle, it will produce death, but this has been done by introducing it direct; but when it is injected in this manner, it produces analgesia all over the body, without any bad effects. The reason we have failure is, first, the mode of injecting; second, a large needle, which allows a waste; third, I have known men to inject before the fluid appears, and you can not tell then whether you get into the subarachnoid space or not. If we do not get into the space, we will not have analgesia.

In one case I tried it, not as an experiment; but it happened, when I put the needle in, that I noticed only one drop, and, when I injected it, I said to the physicians present, "I doubt if it went into the subarachnoid space, because no fluid appeared." I should have waited, but I was anxious to get the result. I waited twenty minutes, and there was no analgesia, showing that it must enter the subarachnoid space before anesthesia will take place, and the evidence is, not the resistance, but the appearance of the fluid. I am more than pleased to see the objection raised, as that is the only way we have to advocate it. I have only one objection to it, and it has not been mentioned to-night; that is sepsis. We must be careful. If you get sepsis, the surgeon must leave it to nature. The cerebro-spinal fluid contains no white blood corpuscles, and for that reason we expect any infection to do great damage; but in an experiment, a short time after, I found the cerebro-spinal fluid loaded with leucocytes, and it is not so much feared as I first expected.

Dr. J. Henry Barbat: The treatment of these cases is very simple, which consists in opening the abscess when you have one. Back East they do not consider that an operation. The simple puncture of an abscess in Douglass' pouch is a simple matter, and should be done. All gynecologists agree that that is the proper way to get rid of it, but that is the smaller part of the operation. We find a few cases which recover permanently by evacuation through the vagina, but in the majority of these cases there are adhesions following the inflammatory condition. The only way to operate in these cases is through the abdomen, and break the adhesions and evacuate. It is a mistake to remove through the vagina, as we can only remove as high as the finger will reach, and in many cases the appendix is involved, and few would take the appendix out through the vagina. In all chronic cases we should evacuate through the vagina, and then do our work through the abdominal incision. When the pus is found in the cul de sac, evacuate the pus, and allow the acute symptoms to subside, and then remove the structures. Very often it is essential to remove the tube, and also the uterus and ovaries, and results in a permanent recovery. In the majority of cases the inflammation is extensive, and the only possible way is to remove the entire mass.

CALIFORNIA ACADEMY OF MEDICINE.

Regular Meeting, July 23, 1901.

Dr. D. W. Montgomery, the president, occupied the chair.

The following papers were read: Dr. J. Henry Barbat, "Gastro-Enterostomy for Inoperable Cancer of the Pylorus;" Dr. Philip King Brown, (1) "Acute Lymphemia, with Aestivo-Malaria; (2) "Marked Diabetes without Subjective Symptoms."

ACUTE LYMPHEMIA WITH ESTIVAL MALARIA.

Patient, A. R., Frenchman, age 44, resident of Fresno, came to me in September, 1896, with a history of an occasional chill, continued fever, weakness and malaise dating back five weeks. No previous illness, no syphilis, no trauma. Stout, well-built man, yellowish color to skin not unlike jaundice, but sclerotics are white. Temperature 102.2, pulse 120. Spleen easily felt, not tender. Liver dulness, 10 cm. in right mammary line. Heart and lungs presented nothing abnormal, urine negative. Glands all over the body enlarged slightly, but not tender. No eruption, no bone tenderness, no scar or sore on penis. Tonsils not enlarged or inflamed. Blood examination reds 3,820,000, whites 42,000. Hgb. 65.82 per cent of white cells were mononuclear lymphocytes, nearly all the large variety. Few crescent forms of the estival parasite, no young forms seen. The patient died six weeks later. No autopsy.

MARKED DIABETES WITHOUT SUBJECTIVE SYMPTOMS.

Patient, J. B. E., male, 44 years old, bookkeeper, discovered by accident in 1899 that he had diabetes mellitus. He is and has been for years very athletic, and noted no difference in his health or strength prior to this discovery. He continued his exercise and slightly restricted his diet until examined by me in June, 1901. First 24 hours urine 3472 cc. in 9 voidings, one being at night. Specific gravity 1056, no albumen, 20 per cent sugar, 1.5 per cent urea. Second 24 hours 4526 cc., 10 voidings, one being at night, 1053 specific gravity, no albumen, 18 per cent sugar, 1.4 per cent urea. In the seven months following this the patient has observed no special diet, and has eaten much bread. He has had an occasional night sweat, but no cough and no weakness, and his weight has remained stationary for a year. Eyesight good, no boils, pruritus, skin eruption, numbness or neuralgia, and his condition is unchanged whether he diets or not. For three days at present time his urine has ranged from 4278 cc. to 4960, and the sugar from 15 to 20 per cent, individual specimens showing more than 20 per cent. A trace of albumen in the urine is accounted for by a little old blood and an occasional leucocyte. The urea varies from 0.4 per cent to 0.6 per cent.

Dr. J. H. Barbat: One feature in connection with this is that one gentleman having a number of cases of diabetes told me that his cases were cured with one-sixteenth grain doses of bichlorid of mercury three times a day. I have had no cases since on which to try it, but will do so on the next case. I had a case in which there was optic neutitis with the diabetes, and the patient was so bad that he could see nothing. He was given one-twentieth grain of strychnin, which was increased to one-fifth grain each day, and the eyesight improved. The sugar disappeared from the urine, and he lived four or five years.

Dr. D. W. Montgomery: I would like to ask how you account for the vast amount of sugar?

Dr. Philip King Brown: His appetite for bread, 20 per cent of 4900, would represent the grains of sugar eliminated in a day, amounting to about one kilo. He tried the usual diet for three or four months, and the sugar decreased to 5 per cent, but he did not feel any better from it, and he saw no reason why he should keep up the treatment. I persuaded him to give up the violent exercise, and some constipation came on. No diabetic acid has been present at any examination made by me.

As to the case of Dr. Barbat's, the question arises whether it was carcinoma or not. I saw the patient first in the polyclinic a few years ago, and I wanted to refer to the clinical records to-night, but was unable to do so. I wished to bring data to show that the diagnosis of carcinoma was made one and one-half years before Dr. Barbat saw the case. I examined her stomach contents then. I was surprised to see her come into my office three or four months after I left the polyclinic. Her weight decreased from 136 to 118 pounds. I examined the stomach contents again and also the patient. She had a cachexia, and vomited retained food and had a history of coffee-grounds vomiting. She never had any free HCl in her stomach, even at the first examination, and the contents removed after a test meal looked like gruel, and contained things taken into the stomach some days before. There was a large quantity of lactic acid present. Immediate operation was advised. There was no doubt that the mass was connected with the pylorus, on account of the stenosis and the position. That the tumor was malignant, we must admit, on account of the vomiting of blood, absence of HCl, cachexia, and great loss of weight. There are cases where tumors disappeared before. I saw a case in the Pennsylvania Hospital that had been operated on for cancer of the stomach. It was discovered that the growth was so large that it was thought best not to remove it, and the wall was closed up, and the physician in charge told me the size of the tumor. He showed me the patient three weeks later, and it was much smaller. Fortune favored investigation in this case, as the patient fell down an elevator shaft some weeks later, and at autopsy no tumor was seen. It was supposed to be a case of syphilis. There was never any emaciation and no pain or absence of HCl, but simply a tumor. There are other recorded cases, where there is a clinical history of carcinoma, and the tumor has disappeared. There is no doubt in my mind that this was cancer. There are no symptoms of syphilis, and the question that it was benign does not seem to be worth consideration. In this case if anything happens, we will be able to see what occurred, and we should be careful to watch the patient, as the history is carefully recorded by Dr. Barbat, and if it could be proven in any way that it was malignant, the case would certainly be an important one. When I saw her a year ago, I told her if she were not operated on immediately, she would be dead in six months. I recommended a surgeon and sent her to him, and one year later Dr. Barbat operated on her.

Dr. D. W. Montgomery: It seems to me that if it was a scirrhus of the pylorus, then it must have been one of those slow-cicatrizing, scirrhus tumors, which created a much larger tumor, than it would otherwise do, because of the irritation, due to the food rubbing up against it, and the stomach trying to force the food through the pylorus, and that being removed, the old cicatrizing process continued. I think that this view might go. We know that some of these scirrhus carcinomas are exceedingly slow, but the chance of that being so is exceedingly rare. I have seen one case, however, of scirrhus cancer, which I removed from the posterior wall of the duodenum, about midway between the pylorus and entrance of the bile duct. The man died of anemia simulating pernicious anemia. That was years ago. The tumor was quite small, and quarter of a dollar could fit into the ulcer. It was evidently not stenosed, and the trouble in the stomach was probably a failure to shove the food along; it irritated the surface of the cancer, and there was a stasis, and that being so, the stomach ballooned. Of course, the food does not digest, and the anemia deepens, the muscle fibers become slack, and the stomach larger. This lasted quite a long time before he died. If this was carcinoma, it may have been a similar one, with more inflammation around it. In the operation, you simply switch the food. and relieve the irritation. I have no faith in the cure of the case, if it is a cancer, and I think it is, the inflammatory products are absorbed, and we do not find the tumor. I can not imagine that cancer of the pylorus can undergo spontaneous cure. Cancer of the breast is said to have done so by sloughing, but there was no sloughing here. If such a huge amount of necrosis had taken place, it would go into the peritoneum. The fact that there is a tumor is not conclusive; there being no HCl is not conclusive, the situation is not conclusive, and the fact that the case got well is conclusive evidence on the other side.

Dr. Terry: I would like to ask if the absence of HCl precludes peptic ulcer in this case?

Dr. Brown: I should say not. In the first place, I have never seen peptic ulcer that caused such symptoms of stenosis, loss of weight and cachexia, without a distinct history of local trouble. In the first examination there was no stenosis, and the stomach was not much dilated, and there had never been any pain, and at the second examination, four months later, the tumor was out of all proportion to anything like an inflammatory process. Dr. McCone once reported a case of large granulomata of the omentum. It was unusually large, and quite out of the ordinary line of anything that I know of. Such tumors attached to the stomach could not easily be mistaken for tumor of the stomach. Such tumors do disappear we know. In answer to your question of the absence of HCl, with peptic ulcer, I have seen absence of HCl frequently where peptic ulcer had been diagnosed at some former time, and in cases of peptic ulcer of chronic nature complicated by some other condition. I recall especially one case of acute tuberculosis of this nature where in ten days the HCl which had been increased for a long period disappeared, and remained absent until the death of the patient.

Lactic acid is always present where there is stasis. I have no doubt this tumor might be a scirrhus tumor, as Dr. Montgomery suggested. I have a specimen of such a tumor, involving the entire stomach, in an adult fifty years of age, and the entire stomach was not as big as my closed hand. An anastomosis was made with the duodenum, and had it not been for the unfortunate result of the anatomical relations that the anastomosis had to be made directly opposite the common bile duct, and the pouring out of the bile had an unfavorable action on the wound, I think the patient would have lived indefinitely, as far as the active process of the tumor was concerned.

Dr. D. W. Montgomery: The patient I was speaking of I referred to as an instance of one which existed a very long time, and there was dilation of the stomach. That occurred before the present method of ascertaining the presence of HCl was developed. I did not do that work, but I suppose if we had we would not have found it.

Dr. J. F. McCone: The inflammatory masses in the abdomen are often mistaken for new growths and tumor formation. Take inflammation of the tube or appendix, and we find quite a tumor. It seems quite reasonable that we will be able to find a tumor due to inflammation if there is an ulcer and one that is palpable, and I would certainly hesitate to make a diagnosis of cancer of the pylorus on the data Drs. Barbat and Brown give. The vomiting, lack of nourishment, and stenosis will account for the emaciation, and without having further proof, I would not make that diagnosis, and the disappearance seems to be proof that it is not canecr.

Dr. Barbat: The presence of HCl does not determine the presence of carcinoma. I think it is confirmatory, or a diagnostic point we should always seek. In this case we went over all the classic symptoms carefully. I do not claim to be as accurate in going over a case as Dr. Brown, but we went over the case thoroughly, and we found all the classical symptoms of carcinoma of the pylorus. When I opened the abdomen, I found the case inoperable. The tumor mass was part of the pylorus, and certainly circular in character, involving the entire thickness of the stomach and pylorus, not extending down to the duodenum, but limited to the pylorus and wall of the stomach. The mass was hard and firm, and presented all of the macroscopic appearances of cancer. The adhesion on the anterior abdominal wall was due to the inflammatory condition. I can not but feel that the mass was carcinoma; but naturally, the only way to prove that the tumor was malignant is to place it under the microscope, and then there would be a discussion. Here clinically, the mass is carcinoma, and simply because we can not feel it does not say that it does not exist. The large wall of fat makes it more difficult to feel than before. The apparent absorption of the tumor is in the same ratio as the growth of fat. Another feature of the case is, I gave her pepsin and HCl. After eating she would feel distressed, but would not vomit. She kept the medicine up for two months, and then did without it, and she could eat anything and there was no more distress. Evidently, there was restoration of the digestive fluids, and I intend to make an examination of the stomach contents and see if HCl is present, and I think I will find it now, as the history of eating would indicate that. In all malignant growths physiological rest to the parts allows the inflammation to subside, and possibly during the absorption of the inflammatory products it is not unreasonable to suppose that there is absorption of the epithelial cells which have been thrown out and formed the malignant growth. I have in mind a case in which I delivered a woman with placenta previa centralis, and during the examination of the abdomen, I found several projections on the uterus, and determined that they were subserous fibromas, and I told the husband she would probably have to be operated upon later. She came to my office six months later, and there was not a sign of the growth to be found. During the involution of the uterus they disappeared entirely. Take the carcinoma of the rectum and perform an inguinal cholostomy, and it immediately becomes better, the fecal matter passes away, and the disease is much benefited. In this case I will certainly keep watch on the woman, and when she dies I will examine the specimen, and determine whether or not it was carcinoma of the pylorus, or a benign tumor. I did not take enough time to find lymph nodes.

A CASE OF VERRUCAE OF THE MUCOUS MEMBRANE OF THE MOUTH.

Dr. H. Kugeler reported the following case: Miss N., 22 years, German, had warts on her hands for many years. These disappeared three years ago. Two years ago a small growth appeared on the inner surface of the lower lip; gradually more appeared, until at the present time the inner surface of both upper and lower lips and the buccal cavity on either side to the second molar teeth are covered with small warty growths. Lately a few have made their appearance on the outside of the upper lip near the margin of the skin. There is no pain, but they are frequently bitten, bleed freely and the main source of annoyance is the prominence and the consequent disfigurement the moment the mouth is opened.

Dr. Morrow: If you will use magnesium sulphate, one dram twice a day, I think they will disappear. All the cases of multiple warts I have seen have disappeared with this treatment.

CORRESPONDENCE.

U. S. S. New Orleans, Off Taku, China,
May 27, 1901.

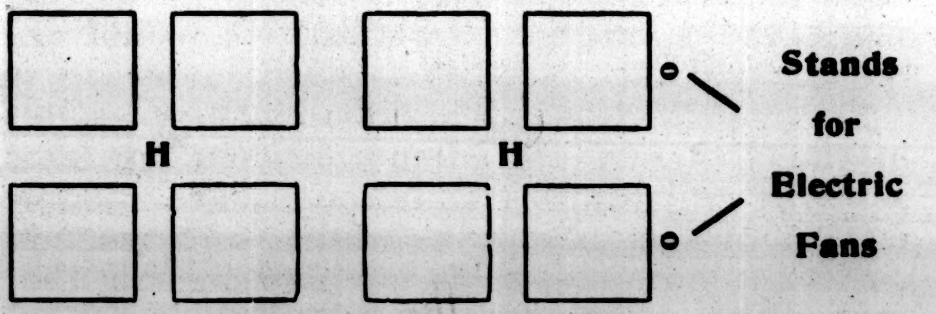
Sir: I have the honor to submit the following account of a visit made by me on the 23d instant to the British (Red Cross) hospital ship Carthage, in the hope that some, at least, of the observations may be found of interest in the military services of the United States:—

Occasion of Visit.—This was to enable me to make a diagnosis in the case of a quartermaster, then, and now, quite ill, on board this ship. It will suffice to state that this man's case had not sufficiently declared itself to enable me to make a diagnosis then, although he had been ill for five days and on the sick list all the time. The ship, the Carthage, received her sick and sailed too soon after my visit to permit me to receive the report as to the indications of the presence or absence of typhoid fever that could be had from the specimens of the blood and urine that I took aboard of her. It is worthy to note, however, that Widal's reaction was also obtained by the use of Wright's anti-typhoid vaccin, in spite of the age of the preparation in hand, the officer of the Indian Medical Service, who kindly consented to make it for me, saying that it was perfectly practicable to get clumping. In view of the accumulated testimony in favor of the efficiency of this vaccination, it is suggested that Wright's vaccine might be issued to our ships when cruising in this typhoid-infested country. It must be noted, however, that microscope and accessories fit for modern clinical use will be indispensable; but, in view of its usefulness in enabling medical officers to differentiate malarial, typhoid, Malta, and possibly other fevers, and to recognize, in time for effective sanitary preventive measures, cholera, plague, and amoebic and bacillary dysentery (by the reaction with Shiga's bacillus), its issue seems to me to be urgently necessary.

The British (Red Cross) Hospital Ship Carthage.—She is owned by the Peninsular and Oriental Steamship Company, but is held at the disposition of the Admiralty, without subsidy, according to Brassey's "Annual" for 1900; is of 430 feet length, 44½ feet beam, and 22½ feet mean draught; her gross registered tonnage is 4,879 tons, and she has an effective speed of 15 knots per hour. She is manned in her nautical appointments by her (merchant) officers and native Indian crew, in line with the company's policy. Major Dawson, I. M. S., is in charge, and has three assistants of the same service, but I did not understand their names when we met. The following leading details were offered by the officer named in the course of our visit about the ship, throughout which he very kindly accompanied us, explaining everything:—

Elevators for Stretcher Patients.—Two large, double elevators, capable of lowering four stretchers at a time through each of their hatches, have been rigged, (a) in place of the skylight of the main dining saloon, which is forward on the main deck, and (b) in the main cargo hatch. These are operated by hand, and are probably little used, except for lowering sick and wounded immediately upon getting them aboard. The usual wheeled stretcher of the wards was plentifully supplied; no sick are kept below the main deck; the wards themselves are separated, partly by new bulkheads and partly by the pantry and companionways of the ship. Much of her carved and ornamental woodwork is boxed in.

Wards, etc.—These are kept, designedly, as small as is consistent with the purposes of the ship. Each extends athwartships, but certain of the suites of cabins at the sides have been retained for officers of rank, etc. There is no double-decking of beds, notwithstanding the good headroom. The beds themselves are the usual hospital cots, fixed to the deck, of course. Equally, of course, they have side-boards and end-boards for safety at sea; and a recessed bedside table is adjustable on the side of each cot. They are placed in groups of fours, usually, thus: with adjacent sides and ends in contact, the patients' heads being together. Electric fans are very numerous; in some wards there is a stand for one at the foot of each bed. There is said to be no trouble from their tendency to cause neuralgia, as has been claimed regarding them with us. Ward kitchens (or closets) for the orderlies on duty seemed sufficiently numerous. All of the attendants that I saw were natives of India. Additional room for convalescents and cases but slightly ill is secured by temporary, folding transoms fitted to the ship's sides; available space in certain gangways and alongside deckhouses is also utilized thus. Daylight on the main deck can never be insufficient, and the large ports, whose shutters contain the usual seagoing deadlight, provide unusually large windows in the sides whenever they are opened.



Accessory Spaces on Main Deck.—These embrace an operating room of reasonable size. Its most commendable feature is a sterilizer heated by an electric stove. Certain small saucepans for the ward kitchens, similarly heated, were stored here for the time being. They were highly commended by all of the staff and attendants whom I questioned.

In this room also was a storage battery (pattern not ascertained) of quite moderate size—say three feet by one foot by eight inches—that operated a ten-inch sparkling coil, whose interrupter appeared to be an inverted pendulum with a weight of quite an ounce avoirdupois. This whole X-ray machine was set in motion by an Indian attendant in a very short time, and Major Dawson demonstrated the bones of his own hand to us in the full light of the room. Some time after we had passed on, I heard and saw this native and another one amusing themselves with the fluoroscope. There were some interesting skiagrams of recent cases from the complete dark-room a little abaft the preceding one. The mess-room is in the after part of the old dining saloon; it extends almost across the ship, just forward of the main companion-ladder. The ship's officers retain their quarters as formerly; the smoking-room is the lounging-place for them and for the medical staff and convalescent officers. The upper deck, upon which it sits, is a superb one for promenading. The ward spaces are ventilated by the forcing-in system. The intake is a specially-constructed trunk well aft, that is almost lined inside with steam coils. It was explained that these native (Indian) troops suffered greatly from the cold, even as far south as Hongkong, in bad weather, and that the trouble was amply repaid by the comfort to them.

Store Rooms, Supplies, etc.—These appeared to me to have been built in most conveniently. I judged the work to be all well done, the most of the wood used being teak. Arm racks (for the rifles of the patients) had been provided; and there were even padded cells. Every room below was plainly lettered, but often without spaces between separate words. The excellent quality of the blankets, which seemed too numerous for any possible demands, was noticeable.

The absence of the (with us) extraordinary precautions for the conservation of alcoholic liquors was a feature of this ship; it is due, I surmise, to the preponderance of Mohammedans amongst the attendants. There were many evidences of care to preserve caste and religious differences, extending even to the wash houses, disinfecting tubs, etc. A small Lyons disinfector occupies a place well forward on the uppermost deck. It gets its steam from a deck, once used for handling baggage and cargo.

Comments.—May I presume to preface these with a disclaimer either of Anglophilism or of any desire whatever to belittle the havings and holdings of the United States? I do so because it has long been my experience that the account of every real advancement in our public services has been met with some such charge against the not fully self-satisfied American noting it.

I came to this station, one out of the comparatively large number of navy officers ordered (not counting one that went directly to Guam) at one time or another to adopt this method of transportation, in a chartered transport vessel that had made the trip to San Francisco from Manila with a not inconsiderable number—I believe it was almost a thousand—of sick, many of whom were bedridden and afflicted with dysentery; and I could see, from what the 800 and odd recruits that made the passage thence to Manila, had to endure, how horrible that passage must have been in many of its details (e. g., the ship had only one medical officer, and the amount of clerical work incumbent on him would of itself have hampered him effectually as far as real professional work is concerned). On this account the comforts, nay, the very luxuries, provided for the natives of India by a British colonial government, may possibly appeal too strongly to me.

I should add that the Carthage was, up to a comparatively recent time, on a royal mail route between Aden and Bombay; that she was fitted out in the very complete manner that I have tried to indicate at the last-named port in three weeks, and that I failed to find her materially deficient in any particular compared with what hospital and ambulance ships I have had the opportunity to visit. It may go for completeness, also, if I state that the patient in whose behalf I made this visit has been observed, in as far as mere bedside observations can settle such a fact, to be affected with cerebro-spinal meningitis of the epidemic variety; or, to be more exact and less provocative of apprehensions, that variety of the disease due to the micrococcus of Weichselbaum (diplococcus meningitidis intracellularis). I believe that the man will recover. (He did.)

W. D. Arnold, M. D., U. S. N.